RED. 6X DATE 7-81 MA.NO.336-337 ASI.NO.2307-2308 MICROFILM INDEX FRAME NO.1

No.	Drawing#	Section	Drawing Title	Revision
H-1	010301	O	GENERAL ARRANGEMENT OUTBOARD PROFILE	2
H-2	010302	O	GENERAL ARRANGEMENT INBOARD PROFILE	2
H-3	010303	O	GENERAL ARRANGEMENT INNER BOT-TOM FORWARD	2
H-4	010304	O	GENERAL ARRANGEMENT INNER- BOTTOM AFT.	1
H-5	010305	O	GENERAL ARRANGEMENT TANK TOP FORWARD	2
H-6	010306	O	GENERAL ARRANGEMENT TANK TANK TOP AFT.	2
H-7	010307	O	GENERAL ARRANGEMENT 17'-10", 26'LEVELS FORWARD	2
H-8	010308	O	GENERAL ARRANGEMENT 17'-10", 31'-6" LEVELS AFT.	1
H-9	010309	O	GENERAL ARRANGEMENT 32'-0", 40'-0" LEVELS FORWARD	1
H-10	010310	O	GENERAL ARRANGEMENT 32'-0",40'0" LEVELS AFT.	2
H-11	010311	O	GENERAL ARRANGEMENT 2ND DK. FORWARD	1
H-12	010312	O	GENERAL ARRANGEMENT SECOND DK. AFT	1
H-13	010313	O	GENERAL ARRANGEMENT MAIN DK FWD	2
H-14	010314	O	GENERAL ARRANGEMENT MAIN DK AFT	2
H-15	010315	O	GENERAL ARRANGEMENT UPPER, CABIN, BRIDGE DK. & HOUSE TOP	2
H-16	010316	O	BOOKLET OF GENERAL PLANS, UP- PER DK. & ABOVE, DATA & TITLE	2
H-17	0103162	O	BOOKLET OF GENERAL PLANS, IN- BOARD & OUTBOARD PROFILES	2
H-18	0103163	O	BOOKLET OF GEN'L PLAN,MN.DK., 2ND DK. & MISC. FLATS	2
H-19	0103164	O	BOOKLET OF GEN. PLANTS TK. TOPI.B. MIDSHIP & CROSS SECTION	2
H-20	0103165	O	BOOKLET OF GEN. PLANS TYPICAL SECT.SHOWING TK. CONFIGURATION	2
H-21	050001	S	LINES PLAN	0
H-22	050003	S	OFFSET BOOKET	1
H-23	070001	H	DOCKING PLAN	3
H-24	110101	H	SHELL EXPANSION FWD	4
H-25	110102	H	SHELL EXPANSION AFT	5
H-26	110103	H	BILGE KEEL	0
H-27	110104	H	BOW VENTURI & PLATFORM ARRGT.& DETS	1
H-28	110201	H	INNERBOTTOM PLATING & FRAMING FWD	4
H-29	110202	H	INNERBOTTOM PLATING & FRAMING AFT	7
H-30	110301	H	FORE PEAK	2
H-31	1103012	H	FORE PEAK FRAMING TRANSV.SECT.FRS. 9-21	3
H-32	1103013	H	FORE PEAK FRAMING TRANSV.SECT.FWD. OF FR.9	3
H-33	110302	H	AFTER PEAK FRAMING	4
H-34	1103022	H	AFTER PEAK FRAMING	2
H-35	1103023	H	AFTER PEAK FRAMING	3
H-36	1103024	H	AFTER PEAK FRAMING	4
H-37	110303	H	FLOORS FWD.	3
H-38	110304	H	FLOORS AFT	5
H-39	110305	H	WEB FRAMES 24-57	5
H-40	110306	H	WEB FRAMES 59-84	2
H-41	110307	H	WEB FRAMES 86-94	4
H-42	110308	H	WEB FRAMES 96-100	3
H-43	110309	H	WEB FRAMES 103-119	4
H-44	110310	H	SIDE FRAMES	1
H-45	110401	H	CVK. GIRDERS & SHELL LONG'L I.B. FWD.	2
H-46	110402	H	CVK. GIRDERS & SHELL LONG'L I.B. AFT	4
H-47	110403	H	SHELL LONG'L & STRINGERS FWD	6
H-48	110404	H	SHELL LONG'S AFT	3
H-49	110501	H	O.T./W.T. BHDS.44 & 52 & N.T. SWASHBHD. 48	3
H-50	110502	H	W.T. BHDS. 55 & 58	4
H-51	110503	H	W. T. BHDS AT FRS. 61,70,76, &85	2
H-52	110504	H	BHDS. 90 & 95	4
H-53	110505	H	BHDS. 101-121	3
H-54	110506	H	W.T. LONG'L BHDS 35'-0" & 40' 0" OFF CENTER LINE FWD.	3
H-55	110507	H	W.T. LONG'L BHDS. 35'-0" & 40'0" FF CENTER LINE AFT.	5
H-56	110508	H	MISC BHDS BELOW MAIN DK.	7
H-57	110509	H	STRUCTURAL TRUNKS	3
H-58	1105092	H	STRUCTURAL TRUNKS	3
H-59	110510	H	MISC. BHD. PARTITIONS & TANKS AFT	2
H-60	110511	H	MISC. LONG'L BHDS. AFT	6
H-61	110513	O	EXPANDED METAL BHDS.	2
H-62	110514	O	EXPANDED METAL HATCH COVERS	2
H-63	110601	H	2ND DK PLATING & FRAMING FWD.	0
H-64	110602	H	2ND DK PLATING AFT.	5
H-65	110603	H	MAIN DK. PLATING FWD.	5
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No.	DRAWING#	SECTION	DRAWING TITLE	REVISION
H-66	110604	H	MAIN DK. PLATING & FRAMING AFT	7
H-67	110605	H	CRANE WAY EXTENSION	1
H-68	110606	H	BOW THRUSTER COMPT & FLATS (7'-6",22'-0"&40'-0")FR 21-44	6
H-69	110607	H	FLATS (21'-6",26'-0"& 36'-0") FRS. 44-58	3
H-70	110608	H	FLATS AFT	8
H-71	110609	H	UPPER DECK PLATING & FRAMING	4
H-72	110610	H	CABIN DECK PLATING & FRAMING	4
H-73	110611	H	BRIDGE DK. & HOUSE TOP PLATING & FRAMING	5
H-74	110612	H	WALKWAYS IN HOLDS (FWD.)	2
H-75	1106122	H	WALKWAYS IN HOLDS (AFT.)	2
H-76	110613	H	HATCH COAMING DETS. FWD.	1
H-77	110614	H	HATCH COAMING DETS. AFT.	3
H-78	1106152	H	CASTINGS IN HATCH COVERS & COAMINGS	3
H-79	110701	H	MAIN DECK BHDS.	2
H-80	110702	H	UPPER DECK BHDS.	1
H-81	110703	H	CABIN DECK BHDS.	1
H-82	110705	H	STACKS & DECKHOUSES	1
H-83	1107052	H	STACK & DECK HOUSES (STACK HOUSE PORT)	4
H-84	1107053	H	STACK & DECKHOUSES(STACK HOUSE STBD.)	3
H-85	110706	H	HOUSE FRONT & BRIDGE WING BUL-WARKS	1
H-86	110707	H	HOUSE SIDES & BULWARKS	1
H-87	110708	H	PILOT HOUSE	1
H-88	110801	H	STERN FRAME,RUDDER HORN & SHAFT STRUT CASTINGS	4
H-89	111101	S	MIDSHIP SECTION & WT. BHD	7
H-90	111102	S	SCANTLING PLAN	3
H-91	111103	S	SCANTLING SECT'S & DETS	2
H-92	111201	H	MAIN ENGINE & CONDENSER FDN.	2
H-93	111202	H	SHAFT BEARING FDN. (INC THRUST BEARING)	3
H-94	111203	H	ENGINE ROOM FLAT 22'-6"ABV. BASE LINE	5
H-95	111204	O	FOUNDATIONS INSIDE MACHINERY SPACES	4
H-96	111205	O	FOUNDATIONS OUTSIDE MACHY. SPACES	5
H-97	111206	O	MISCELLANEOUS ELECTRICAL FDNS.OUTSIDE MACHY SPACES	5
H-98	111207	O	FOUNDATIONS IN COMMISSARY SPACES	1
M-99	111208	V	VENT. & AIR CONDITIONING FDNS.	2
H-100	111209	H	FDN. FOR STANDBY DIESEL GENER-ATOR	0
H-101	111210	H	HIGH PRESSURE TURBINE GIRDER	1
H-102	111211	O	FOUNDATION & SUPPORT DETS. FORFLOODLIGHTS,ANTENNAS,&LOUD-	1
H-103	111212	O	PACKAGE FOUNDATIONS	4
H-104	120101	H	MOORING ARRGT. & FDNS.	7
H-105	120102	H	BOW CHOCKS	0
H-106	120103	H	18" PEDESTAL ROLLER FAIRLEADER	0
H-107	120104	H	21"X10" CLOSED CHOCKS TYPES 1,2, & 3	0
H-108	120105	H	14" & 16" DOUBLE BITTS	1
H-109	120106	H	BARGE MOORING BITTS	1
H-110	120201	O	GUARD CHAIN RAILS AROUND HATCHES	1
H-111	120202	O	OPEN RAILS MAIN DECK & ABOVE	4
H-112	120203	O	STORM RAILS	1
H-113	120204	B	INTERIOR JOINER STORM RAILS TYPICAL DETAILS	0
H-114	120205	O	PANAMA CANAL PILOT SHELTERS	0
H-115	120501	H	CONTAINER GUIDES & STOWAGE IN HOLD NO.1 (ARRGT. & DET.)	2

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No.	DRAWING#	SECTION	DRAWING TITLE	REVISION
H-116	120502	H	LIGHTER STOW. ARRGT. & DETS. (HOLDS & MAIN DK. STOWAGES)	3
H-117	1205022	H	LIGHTER STOW. ARRGT. & DETS. (WEDGE & CONSTANT PRES.KEEPER)	1
H-118	120503	H	LIGHTER SUPPORT CASTINGS	0
H-119	120504	O	MISCELLANEOUS DAVITS	0
H-120	120507	O	PROPELLER SHAFT & STERN TUBE SHAFT WITHDRAWING ARRGT. &	0
H-121	1205071	O	PROPELLER SHAFT & STERN TUBE SHAFT WITHDRAWING ARRGT & DETS	0
H-122	120508	H	LIGHTER HANDLING (TRANSOM FEN-DERS & GUIDES)ARRGT.&DETS	2
H-123	120509	H	LIGHTER GUIDES ARRGT. DETS. IN HOLD (HOLDS 1 THRU 4)	1
H-124	1205092	H	LIGHTER GUIDES ARRGT. DET. IN HOLD (HOLDS 5-7)	0
H-125	120510	H	SHIP'S STORES CONTAINER ARRGT.& DETS	0
H-126	120511	O	MACHINERY STORES OVERSIDE HANDLING ARRGT. & DETAILS	7
H-127	120512	H	CONTAINER STOWAGE ON HATCHS 1A 1B & 1C	2
H-128	1205122	H	CONTAINER STOWAGE ON HOLDS 2,3, & 4	1
H-129	1205123	H	CONTAINER STOWAGE ON HOLDS 5, 6 & 7 AND ENG. ROOM	1
H-130	120513	O	LIFTING GEAR DETS. FOR PROPEL-LER SHAFT & STERN TUBE SHAFT	0
H-131	1205131	O	LIFTING GEAR DETS. FOR PROPEL-LER SHAFT & STERN TUBE SHAFT	0
H-132	120514	O	LINESHAFT REMOVAL ARRGT. & DETAILS	0
H-133	120515	H	BARGE HANDLING ARRGT.	0
H-134	120516	O	SUEZ CANAL DAVIT	2
H-135	120517	H	N.D.F. LIFT BEAM STOWAGE	2
H-136	140101	O	MISC. GRATING & PLATFORMS ARRGT. & DETS.	3
H-137	140102	B	GRATINGS	2
H-138	140103	B	CARPETS & RUGS	1
H-139	140104	O	MISC. WOOD GRATING	1
H-140	140105	O	DECK COVERING SCHEDULE	4
H-141	160201	H	MANHOLE, HATCH & SCUTTLE LIST	7
H-142	160202	H	STRUCTURAL DOOR LIST	1
H-143	160203	H	LIST OF WINDOWS & FIXED LIGHTS	0
H-144	160204	B	INTERIOR JOINER DOORS SCHEDULE& DETAILS	2
H-145	160205	B	EXTERIOR HINGED DOORS	1
H-146	160206	B	EXTERIOR SLIDING DOORS	1
H-147	160208	B	LIST OF LOCKS, CYLINDERS,KEYS & TAGS	2
H-148	160209	B	JOINER STAIRS(2ND DK.TO CABIN DECK STBD. FR.45-47)	0
H-149	1602092	B	JOINER STAIRS (2ND DK. TO MN. DK. FR. 46-48(P)& CABIN DK. TO	0
H-150	160210	B	JOINER STAIRS(2ND DK.TO UPPER DK.FR.51-50 P/S	1
H-151	160211	B	JOINER STAIRS(MN.DK.TO UPPER DK.FR.27-31)	0
H-152	160212	B	FOLDING DOORS	0
M-153	160224	P	HYDRAULIC PIPING FOR STEERING GEAR	1
M-154	1602241	P	HYDRAULIC PIPING FOR STEERING GEAR L/M	1
M-155	160225	P	HYDRAULIC PIPING W.T. DOORS	2
M-156	1602251	P	HYDRAULIC PIPING W.T. DOORS L/M	1
M-157	160226	P	HYDRAULIC PIPING FOR BOW THRUSTER	0
M-158	1602261	P	HYDRAULIC PIPING FOR BOW THRUSTER L/M	0
M-159	160228	P	EMER. DIESEL GEN. HYDRAULIC STARTING SYS.	0
M-160	1602281	P	EMER. DIESEL GEN. HYDRAULIC STARTING SYS. L/M	0
H-161	160401	O	ACCOMMODATION LADDERS STOWAGE ARRGT.	2
H-162	160402	O	INNERBOTTOM ACCESS LADDERS	3
H-163	160403	O	VERTICAL LADDERS ARRGT.& DETS	4
H-164	160404	O	INCLINED LADDERS	3
H-165	160405	O	LADDERS & FLOOR PLATES IN MACHY. SPACES	6

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No.	DRAWING#	SECTION	DRAWING TITLE	REVISION
H-166	160406	O	JACOBS & PILOT LADDERS	1
H-167	160407	O	LADDERS & LIFELINES IN CARGO HOLOS	1
H-168	170101	H	GANTRY CRANE INSTALLATION DETS	4
H-169	1701012	H	GANTRY CRANES INSTAL. DETAILS (TIE DOWN PEDESTALS)	4
H-170	170102	H	CRANE RAIL DRILLING,SPLICING &HOLD DOWN DETAILS	0
H-171	170103	H	FOREMAST & NVC LIGHT MAST ON CONTAINER CRANE	3
H-172	170105	O	JACK & ENSIGN STAFFS	2
H-173	170107	H	MAIN DK. MACHY. HATCH SLINGING ARRGT. & DETS.	0
H-174	170108	H	STORES CONTAINERS LIFTING ARRGT & DETS.	0
H-175	170111	O	FWD. STORES HATCH HANDLING ARRGT.& DETS. 2ND DECK	0
H-176	180101	O	ARRGT. & DETAILS SIGNAL HOISTS	2
H-177	180102	O	ROPE LIST	2
H-178	180201	O	PROTECTIVE COVERS	1
H-179	190101	O	PAINTING SCHEDULE	11
H-180	220102	H	RUDDER	5
H-181	220103	H	RUDDER SUPPORT SYSTEMS	4
H-182	220104	H	STEERING GEAR FDN. ARRGT. & DETAILS	1
M-183	220106	M	ROTARY VANE STEERING ENGINE ASSEMBLY	0
M-184	2201061	M	ROTARY VANE STEERING ENGINE L/M	1
E-185	240301	E	ARRGT.OF ELECT. EQUIP. IN PILOT HOUSE & TOP OF HOUSE	4
H-186	260501	H	ANCHOR HANDLING ARRGT.	4
H-187	260502	H	HAWSE & CHAIN PIPES	2
H-188	260503	H	CHAIN STOPPER TYPES 1 & 2 FOR 3/16" GRADE 3 STUD LINK CHAIN	0
H-189	280301	O	MISC. HULL LABEL PLATES	3
E-190	280302	E	LIST OF ELECTRICAL NAMEPLATES	2
H-191	280303	B	NOTICE & LICENSE FRAMES & MISC. BOARDS & SIGNS	1
M-192	280305	P	VALVE LABEL PLATES MACHY.SPACESHAFTALLEY & SEWAGE DISPOSAL	4
M-193	280306	P	VALVE LABEL PLATES HULL PIPING	3
H-194	280401	O	SHIP'S NAME, HAILING PORT,HULLMARKINGS & OWNER'S INSIGNIA	3
H-195	280402	O	SHIP'S NAMEBOARD & BUILDER'S NAME PLATE	1
H-196	290101	S	CAPACITY PLAN	2
H-197	290102	S	CROSS CURVERS OF STABILITY	0
H-198	290103	S	TANK CAPACITY CURVES	2
H-199	290104	S	TANK SOUNDING & ULLAGE	1
H-200	290105	S	HYDROSTATIC CURVES	3
H-201	290106	S	BONJEAN CURVERS	0
H-202	290107	S	DAMAGE STABILITY CURVES	1
H-203	290108	S	DAMAGE STABILITY CALCULATIONS	1
H-204	290109	S	TRIM & STABILITY BOOKLET	2
H-205	290110	S	GRAIN LOADING BOOKLET	2
H-206	290111	S	TONNAGE PLAN	0
H-207	290112	S	WEIGHT ESTIMATE	1
H-208	290113	S	STABILITY TEST DATA	0
H-209	290114	S	LONG'L STRENGTH CALCULATIONS	2
H-210	290115	S	LONG'L STRENGTH CURVES	2
H-211	290116	S	LOADING MANUAL	1
H-212	290601	H	JOINT WELDING DETS	1
H-213	290602	H	COMPARTMENT TESTING SCHEDULE	4
H-214	290603	H	WELDING SEQUENCE	0
H-215	290604	H	MAIN HULL NON DESTRUCTIVE TEST REQUIREMENTS	0

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No.	DRAWING#	SECTION	DRAWING TITLE	REVISION
H-216	300101	O	ARRGT. & DETS. FWD. STORES 40' 0" FLAT	3
H-217	300102	O	ENGINEER'S STORES & PAINT LKR.(31'-6" FLAT)	3
H-218	300103	O	ARRGT. & DETS. BOS'N STORES FWD. 2ND DECK	0
H-219	300104	O	ARRGT. & DETS. BOS'N STORES & HHWSERS AFT 2ND DECK	0
H-220	300105	O	ARRGT. & DETS. BOS'N STORES FWD. MAIN DECK	2
H-221	300106	O	ARRGT. & DETS. DECK MAINT. SHOP & PAINT LKR. AFT 2ND DK.	1
H-222	300107	O	ARRGT & DETS STOVEROOM (40'-0"FLAT ENGINE ROOM)	1
H-223	300108	O	ARRGT. & DETS. MISC. DECK LKRS	0
H-224	300109	O	ARRGT. & DETS. BATTERY LOCKERS	0
H-225	300110	O	ARRGT. & DETS. CO2 BOTTLE STOW-AGE	1
H-226	300111	B	LINEN LOCKER DETAILS	2
H-227	300112	B	MISC. LOCKERS & STOREROOMS DE-TAILS	2
H-228	300113	B	LIFE PRESERVER STOWAGE	0
H-229	300114	O	ARRGT. & DETS. STORE ROOM(67'-6" LEVEL STBD.STACK HOUSE)	0
H-230	310201	O	MISC. STOWAGE	5
H-231	330101	B	JOINER ARRGT. BRIDE & CABIN DECKS	7
H-232	330102	B	JOINER ARRGT. UPPER DECK	5
H-233	330103	B	JOINER ARRGT. MAIN DECK	2
H-234	330104	B	JOINER ARRGT. SECOND DECK	3
H-235	330105	B	TYPICAL JOINER DETS.	0
H-236	330107	B	SHOWER STALLS ARRGT. & DETS.	0
H-237	330108	B	WHEEHOUSE WINDOW CASINGS HOUSEFRONT	0
H-238	3301082	B	WHEEL HOUSE WINDOW CASINGS HOUSESIDES	0
H-239	330109	B	WINDOW CASINGS	0
H-240	330110	B	FIXED LIGHT CASINGS	0
H-241	330111	B	GALLEY SHUTTER	0
H-242	330113	B	TOILET ACCESSORIES	0
H-243	330114	B	FURNITURE SCHEDULE	6
H-244	330115	B	MISC. JOINER ITEMS	1
H-245	330117	B	CURTAINS & DRAPES	2
H-246	330118	B	ACCESS PANELS	0
H-247	330119	B	CHART TABLE ENCLOSURE BHDS.	1
H-248	330120	B	COLOR SCHEME	1
H-249	330121	B	SWITCH,RADIO & DUPLEX OUTLETS IN JOINER POSTS	0
H-250	330122	B	CEILING LAYOUT BRIDGE & CABIN DECKS	1
H-251	330123	B	CEILING LAYOUT UPPER DECK	1
H-252	330124	B	CEILING LAYOUT MAIN DECK	1
H-253	330125	B	CEILING LAYOUT SECOND DECK	1
H-254	340101	O	ARRGT. COMMISSARY SPACES	2
H-255	340102	O	DETAILS COMMISSARY EQUIP	0
H-256	350101	O	ARRGT. & DETS. LAUNDRIES	1
M-257	360101	P	PLUMBING FIXTURE SCHEDULE	1
H-258	360401	O	ARRGT. & DETAILS DISPOSAL SYS.	1
M-259	380210	V	DIAGRAM STEAM HEATING SYS.	0
M-260	380211	V	VENT. COOLING COIL & STEAM HEATER LIST	2
M-261	380212	V	STEAM HEATING SYS. CABIN DECK FAN ROOM	1
M-262	3802121	V	STEAM HEATING SYS. CABIN DECK FAN ROOM L/M	0
M-263	3802122	V	STEAM HEATING SYS. CABIN DECK FAN ROOM P/D	0
M-264	3802129	V	HOLE LIST STEAM HEATING SYS. CABIN DECK FAN ROOM	0
M-265	380213	V	STEAM HEATING SYS. FWD. FR.52 OUTSIDE FAN ROOM	1

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No.	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-266	3802131	V	STEAM HEATING SYS. FWD. FR.52 OUTSIDE FAN ROOM L/M	0
M-267	3802132	V	STEAM HEATING SYS. FWD. FR.52 OUTSIDE FAN ROOM P/D	0
M-268	3802139	V	HOLE LIST STM. HTG. SYS. FWD. FR.52 OUTSIDE FAN ROOM	0
M-269	380214	V	STEAM HEATING SYS. PIPE & AC- CESS TUNNEL FR. 52-90 STBD	0
M-270	3802141	V	STEAM HEATING SYS. PIPE & AC- CESS TUNNEL FR. 52-90 STBD L/M	0
M-271	3802142	V	STEAM HEATING SYS. PIPE & AC- CESS TUNNEL FR. 52-90 STBD P/D	0
M-272	3802149	V	HOLE LIST STM. HTG. SYS. PIPE & ACCESS TUNNEL FR. 52-90 STBD	0
M-273	380215	V	STEAM HEATING SYS. ENGINE ROOM& PORT STACKHOUSE	0
M-274	3802151	V	STEAM HEATING SYS. ENGINE ROOM& PORT STACKHOUSE L/M	0
M-275	3802152	V	STEAM HEATING SYS. ENGINE ROOM& PORT STACKHOUSE P/D	0
M-276	3802159	V	HOLE LIST STEAM HEATING SYS. ENG. ROOM & PORT STACKHOUSE	0
M-277	381001	V	VENT. HEATING & COOLING LOAD CALCULATIONS	1
M-278	381002	V	VENT. DIAGRAM UPPER DECK & ABOVE	0
M-279	381003	V	VENT. DIAGRAM MAIN & 2ND DECK	0
M-280	381004	V	VENT. DIAGRAM BELOW 2ND DECK	0
M-281	381005	V	VENT. DIAGRAM MACHY. SPACE	1
M-282	381006	V	VENT. FAN LIST	5
M-283	381007	V	LIST OF VENT. & A/C TERMINALS	3
M-284	381008	V	VENT. ELECT. HEATER LIST	2
M-285	381009	V	HVAC AIR MIXING BOX LIST	1
M-286	381010	V	VENT. GENERAL NOTES & CONSTRUCTION DETS.	1
M-287	381011	V	VENT. FILTER LIST	2
M-288	381012	V	VENT. LABEL PLATE LIST	1
M-289	381013	V	VENT. SYSTEMS STATIC PRESSURE CALCULATIONS	0
M-290	381014	V	VENT. ARRT. & DETS. MN.DK.FR. 97-102 & STACKHS. PORT & STBD	3
M-291	3810149	V	HOLE LIST FOR VENT. ARRGT.DETS MN.DK.FR.97-102 & STACKHS.	2
M-292	381016	V	SCHEDULE OF GOOSENECKS, WATER-TIGHT & CANVAS COVERS	1
M-293	381018	V	VENT. ARRGT. MACHY. SPACE PLANS	3
M-294	3810182	V	VENT. ARRGT. MACHY. SPACE PLANS (SH.2)	3
M-295	3810189	V	HOLE LIST FOR VENT. ARRGT. MACHY. SPACE	0
M-296	381021	V	VENT. ARRGT. MACHY. SPACE ELEV& SECTIONS	3
M-297	381022	V	VENT. ARRGT. FAN ROOM CABIN DK	4
M-298	3810229	V	HOLE LIST FOR VENT. ARRGT. FANROOM CABIN DECK	2
M-299	381023	V	VENT. ARRGT. CABIN DECK	2
M-300	3810239	V	HOLE LIST FOR VENT. ARRGT. CA-BIN DECK	1
M-301	381024	V	VENT. ARRGT. UPPER DECK FR.21-52 PORT	2
M-302	3810249	V	HOLE LIST FOR VENT. ARRGT. UP-PER DK.FR.21-52 PORT	0
M-303	381025	V	VENT. ARRGT. MAIN DECK FR.21- 52 PORT	2
M-304	3810259	V	HOLE LIST FOR VENT. ARRGT. MN.DK. FR.21-52 PORT	1
M-305	381026	V	VENT. ARRGT. 2ND DECK FR.44-52	3
M-306	3810269	V	HOLE LIST FOR VENT. ARRGT. 2NDDECK FR. 44-52	1
M-307	381027	V	VENT. ARRGT. MN. DK. & BELOW FR. 52-61 CARGO HOLD NO. 1	5
M-308	3810279	V	HOLE LIST FOR VENT. ARR. MN. DK. & BELOW FR. 52-61 CARGO	2
M-309	381028	V	VENT. ARRGT. MN. DK. & BELOW FR. 61-70 CARGO HOLD NO. #2	1
M-310	3810289	V	HOLE LIST FOR VENT. ARR. MN. DK. & BELOW FR.61-70 CARGO	1
M-311	381029	V	VENT ARRGT. MN. DK.& BELOW FR.70 TO FR.76 CARGO HOLD #3	1
M-312	3810299	V	HOLE LIST VENT. ARRGT. MN. DK.& BELOW FR.70-76 CARGO HOLD #3	1
M-313	381030	V	VENT ARRGT. MN DK.& BELOW FR 76-85 CARGO HOLD #4	2
M-314	3810309	V	HOLE LIST VENT.ARRGT.MN.DK.& BEL.FR.82K-97 CARGO HOLK NO.4	2
M-315	381031	V	VENT. ARRGT. MN. DK. & BEL.FR.102-117 CARGO HOLD NO.5 & 6	2

RED.6X DATE 7-81
MA.NO.336-337 AS1.NO.2307-2308
MICROFILM INDEX FRAME NO.2

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-416	460101	Y	2500 SQ FT. MAIN CONDENSER	0
M-417	480002	M	LIST OF SYMBOLS FOR PIPING DIAGRAMS	0
M-418	480006	P	ACCESS TUNNEL PIPING ARRGT. FWD. FR.52-64	0
M-419	4800061	P	ACCESS TUNNEL PIPING ARRGT. FWD. FR.52-64 L/M	0
M-420	4800062	P	ACCESS TUNNEL PIPING ARRGT. FWD. FR.52-64 P/D	0
M-421	4800069	P	HOLE LIST FOR ACCESS TUNNEL PIPING ARRGT. FWD. FR.52-64	0
M-422	480007	P	MISC. DECK FILLING ARRGT. & DETAILS	1
M-423	4800071	P	MISC. DECK FILLING ARRGT. & DETAILS L/M	1
M-424	4800072	P	MISC. DECK FILLING ARRGT. & DETAILS P/D	1
M-425	4800079	P	HOLE LIST FOR MISC. DECK FIL- LING ARRGT. & DETAILS (A301-	0
M-426	480008	P	CARGO HOLD PIPING FR. 52-85	0
M-427	4800081	P	CARGO HOLD PIPING FR.52-85 L/M	0
M-428	4800082	P	CARGO HOLD PIPING FR.52-85 P/D	0
M-429	4800089	P	HOLE LIST FOR CARGO HOLD PIP- ING FR.52-85 (A402-A425)	0
M-430	480009	P	ACCESS TUNNEL PIPING ARRGT.AFTFR.90	0
M-431	4800091	P	ACCESS TUNNEL PIPING ARRGT.AFTFR.90L/M	0
M-432	4800092	P	ACCESS TUNNEL PIPING ARRGT.AFTFR.90 P/D	0
M-433	4800099	P	HOLE LIST FOR ACCESS TUNNEL PIPING ARRGT.AFT.FR.90 (A251-	0
M-434	480011	P	INNERBOTTOM PIPING FWD. FR.52	0
M-435	4800111	P	INNERBOTTOM PIPING FWD. FR.52 L/M	0
M-436	4800112	P	INNERBOTTOM PIPING FWD. FR.52 P/D	0
M-437	4800119	P	HOLE LIST FOR INNERBOTTOM PIPING FWD.FR.52 (B1-B25)	0
M-438	480012	P	INNERBOTTOM PIPING FR.52-61	0
M-439	4800121	P	INNERBOTTOM PIPING FR. 52-61 L/M	0
M-440	4800122	P	INNERBOTTOM PIPING FR. 52-61	0
M-441	4800129	P	HOLE LIST FOR INNERBOTTOM PIPING FR.52-61 (B26-B75)	1
M-442	480013	P	INNERBOTTOM PIPING FR.61-70	0
M-443	4800131	P	INNERBOTTOM PIPING FR.61-70 L/M	0
M-444	4800132	P	INNERBOTTOM PIPING FR.61-70 P/D	1
M-445	4800139	P	HOLE LIST FOR INNERBOTTOM PIPING FR.61-70 (B101-B175)	2
M-446	480014	P	INNERBOTTOM PIPING FR.70-76	0
M-447	4800141	P	INNERBOTTOM PIPING FR.70-76L/M	0
M-448	4800142	P	INNERBOTTOM PIPING FR.70-76 P/D	1
M-449	4800149	P	HOLE LIST FOR INNERBOTTOM PIPING FR.70-76 (B176-B250)	1
M-450	480015	P	INNERBOTTOM PIPING FR. 76-85	0
M-451	4800151	P	INNERBOTTOM PIPING FR. 76-85 L/M	0
M-452	4800152	P	INNERBOTTOM PIPING FR. 76-85 P/D	1
M-453	4800159	P	HOLE LIST INNERBOTTOM PIPING FR. 76-85 (B256-B325)	1
M-454	480016	P	INNERBOTTOM PIPING FR. 85-87	1
M-455	4800161	P	INNERBOTTOM PIPING FR. 85-87 L/M	1
M-456	4800162	P	INNERBOTTOM PIPING FR. 85-87 P/D	1
M-457	4800169	P	HOLE LIST FOR INNERBOTTOM PIPING FR. 85-87 (B326-B400)	0
M-458	480017	P	ACCESS TUNNEL PIPING ARRGT. FWD. FR. 64-85	0
M-459	4800171	P	ACCESS TUNNEL PIPING ARRGT. FWD. FR. 64-85 L/M	0
M-460	4800172	P	ACCESS TUNNEL PIPING ARRGT. FWD. FR. 64-85 P/D	0
M-461	4800179	P	HOLE LIST ACCESS TUNNEL PIPINGARRGT.FWD.FR.64-85(A426-A500)	0
M-462	480018	P	CATHODIC PROTECTION SYS.PIPING	0
M-463	4800181	P	CATHODIC PROTECTION SYS.PIPINGL/M	0
M-464	4800182	P	CATHODIC PROTECTION SYS.PIPINGP/D	0
M-465	480021	P	DISTILLER PACKAGE UNIT - PIP- ING	0

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-366	430105	Y	LINESHAFT BHD. STUFFING BOX	0
M-367	4301051	Y	LINESHAFT BHD.STUFFING BOX L/M	0
M-368	430106	Y	CENTRAL CONTROL RPM TRANS- MITTER ASSY.& FDN. DETS.	0
M-369	430109	Y	SHAFT ALIGNMENT CALCULATIONS AND PROCEDURE	1
M-370	430112	Y	BOW THRUSTER DRIVE ARRANGEMENT& DETAIL	6
M-371	430201	Y	STERN TUBE, STERN TUBE BEARING& SEALS,STRUT BEARING & SEALS	1
M-372	4302011	Y	STERN TUBE, STERN TUBE BEARING& SEALS, STRUT BEARING & SEALS	0
M-373	430202	Y	STERN TUBE & STRUT FAIRWATERS & ROPEGUARDS INSTAL. DETS.	0
M-374	4302021	Y	STERN TUBE & STRUT FAIRWATERS & ROPEGUARDS INSTAL.DETS. L/M	0
M-375	430203	Y	STERN TUBE & STRUT FAIRWATER DETS.	0
M-376	430204	Y	SIMPLEX COMPACT FWD.STERN TUBESEAL SIZE-800	0
M-377	430205	Y	SIMPLEX COMPACT AFT STERN TUBESEAL &FWD.STRUT SEAL, SIZE-800	1
M-378	430206	Y	SIMPLEX COMPACT AFT STRUT SEALSIZE 800	1
M-379	430207	Y	THRUST BEARING-50 INCH (8X8) HORIZONTAL TYPE	2
M-380	430208	Y	LINE SHAFT BRG.-SELF ALIGN 23 13/16" JOURNAL DIA.X 33" LG	0
M-381	430209	Y	STEADY BRG.-SELF ALIGN-28 5/8"JOURNAL DIA. X 31 1/4" LG.	0
H-382	440001	S	PROPELLER DRAWING	0
M-383	440002	Y	PROPELLER HUB DETAILS	0
M-384	440003	Y	PROPELLER FAIRWATER CAP DETS.	0
M-385	440920	M	CALCS. BOOKLET FOR ROTARY VANE STEERING ENGINE	0
M-386	450110	M	DIAG. L.O. SERVICE SYS.	0
M-387	450111	P	L.O. SERVICE SYSTEM TURBINE THROTTLE VALVE L.O.CONT.PLANS	2
M-388	4501111	P	L.O. SERVICE SYSTEM & TURBINE THROTTLE VALVE L.O. CONT. SYS.	1
M-389	4501112	P	L.O. SERVICE SYSTEM & TURBINE THROTTLE VALVE L.O. CONT. SYS.	3
M-390	4501113	P	L.O. SERVICE SYS.& TURBINE THROTTLE VALVE L.O. CONT. SYS.	1
M-391	4501119	P	HOLE LIST FOR L.O. SERVICE SYS& TURBINE THROTTLE VALVE L.O.	4
M-392	450120	M	DIAG. L.O. FILLING, TRANSFER & PURIFICATION SYS.	2
M-393	450121	P	L.O. TRANS.& PURIF.SYS. PLANS TK.TP.,12'-8"LVL.&22'-6"LVL	3
M-394	4501211	P	L.O. TRANS. & PURIFICATION SYS. L/M	2
M-395	4501212	P	L.O. TRANS. & PURIFICATION SYS. P/D	3
M-396	4501213	P	L.O. TRANS. & PURIF.SYS. PLANS31'-6",40'-0",& 50'-0" LVL.	2
M-397	4501214	P	L.O. TRANS. & PURIF.SYS.SECT. FR.88-95	3
M-398	4501215	P	L.O. TRANS. & PURIF.SYS. SECT.UPPERLEVEL FR.88-90	2
M-399	4501219	P	HOLE LIST FOR L.O. TRANS. & PURIF. SYS.	1
M-400	450122	P	L.O. SUMP TANK ROSE BOX STRAINER	2
M-401	450130	M	DIAG OF STERN TUBE & STRUT BEARING L.O. SYS.	1
M-402	450131	P	STERN TUBE & STRUT BEARING L.O. SYS. ARRGT.	2
M-403	4501311	P	STERN TUBE & STRUT BEARING L.O. SYS. ARRGT. L/M	2
M-404	4501312	P	STERN TUBE & STRUT BEARING L.O. SYS. P/D	2
M-405	4501319	P	HOLE LIST FOR STERN TUBE & STRUTBRG.L.O.SYS.(A151-A200)	0
M-406	450132	P	STRUT BEARING LO HEAD TK PACKAGE UNIT PIPING	0
M-407	4501321	P	STRUT BEARING LO HEAD TK PACKAGE UNIT PIPING L/M	0
M-408	450133	P	STERN TUBE BEARING LO HEAD TK PACKAGE UNIT PIPING	0
M-409	4501331	P	STERN TUBE BEARING LO HEAD TK PACKAGE UNIT PIPING L/M	0
M-410	450134	P	STERN TUBE LO DRAIN TK PACKAGEUNIT PIPING	0
M-411	4501341	P	STERN TUBE LO DRAIN TK PACKAGEUNIT PIPING L/M	0
M-412	450301	Y	MISC. TANKS ARRGT. & DETS.	2
M-413	4503011	Y	MISC. TANKS L/M	2
M-414	450303	Y	75 GAL. KEROSENE TANK	2
M-415	450407	P	EQUIP. LUBRICATION DATA	3

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-316	3810319	V	HOLD LIST VENT.ARRGT.MN.DK.& BEL.FR.102-117 CARGO HOLD#5&6	1
M-317	381032	V	VENT. ARRGT. & DETS. OF GALLEY	3
M-318	3810329	V	HOLE LIST FOR VENT. ARRGT. & DETS. OF GALLEY	2
M-319	381033	V	VENT. ARRGT.UPPER & MN.DK.FWD.FR.21& 2ND DK.&BEL. FWD. FR44	3
M-320	3810339	V	HOLE LIST FOR VENT.ARRGT.UPPER& MN.DK.FWD.FR.21&2NDDK.&BELOW	1
M-321	381034	V	VENT. ARRGT. 36' FLAT FR.44- 52	1
M-322	3810349	V	HOLE LIST VENT. ARRGT.36' FLATFR.44-52	1
M-323	381035	V	LIGHTER VENTILATION HOSE & COUPLING LIST & DETS.	2
M-324	381036	V	VENT ARRG'T MN. DK. & BELOW FR101 TO FR 121 CARGO HOLD #7	2
M-325	3810369	V	HOLE LIST VENT. ARRGT. MN. DK.& BELOW FR. 101-121 CARGO HOLD	1
M-326	381037	V	VENT. ARRGT. MAIN DECK FR.21- 52(S)	2
M-327	3810379	V	HOLE LIST FOR VENT. ARRGT. MN.DECK FR. 21-52(S)	1
M-328	381038	V	VENT. ARRGT. UPPER DECK FR. 21-52(S)	4
M-329	3810389	V	HOLE LIST FOR VENT. ARRGT. UP-PER DK. FR.21-52(S)	3
M-330	381039	V	VENT. ARRGT. BRIDGE DK	3
M-331	3810399	V	HOLE LIST FOR VENT. ARRGT. BRIDGE DECK	0
M-332	381040	V	VENT. ARRGT. & DETS. STEERING GEAR FLAT	3
M-333	3810409	V	HOLE LIST FOR VENT. ARRGT. & DETS.STEERING GEAR FLAT	1
M-334	381041	V	VENT. ARRGT. & DETS. VENT TRUNK	0
M-335	3810419	V	HOLE LIST FOR VENT. ARRGT. & DETS. VENT. TRUNK	0
M-336	381043	V	LIST OF THERMOSTATIC CONTROL EQUIPMENT	1
M-337	381044	V	MULTI-LOUVER DAMPERS MOTORS INSTAL. DETAILS	2
M-338	381045	V	ARRG'T & DETAILS SHIP'S STORESCONTAINERS	4
M-339	381046	V	FORCED DRAFT BLOWERS INTAKE PLENUMS & SILENCERS	0
H-340	390101	B	INSULATION ARRGT. & DETAILS	2
H-341	390102	B	SHEET METAL SHEATHING ARRGT. &DETAILS	1
M-342	390201	Y	INSULATION & LAGGING SCHEDULE MACHY. & PIPING	1
H-343	400001	O	ARRGT. OF MACHY. IN ENG. ROOM PLAN	2
H-344	400002	O	ARRGT. OF MACHY. IN ENG. ROOM SECTIONS	1
H-345	400003	O	ARRGT. OF MACHY. IN ENG. ROOM ELEVATIONS	2
H-346	400004	O	ARR'T. OF MACHY. IN ENGINE ROOM-P/L	2
H-347	400005	O	ARRGT. OF MACHY. IN SEWAGE DISPOSAL EQUIP. ROOM	1
M-348	400006	Y	MAIN CONDENSER INLET HEAD REMOVAL ARRGT.	0
M-349	400007	Y	MAIN CONDENSER OUTLET HEAD REMOVAL ARRGT.	1
M-350	410101	Y	MAIN ENG. FDN. CHOCKS & BOLTS ARRGT. & DETAILS	2
M-351	4101011	Y	MAIN ENG. FDN. CHOCKS & BOLTS ARRGT. & DETAILS L/M	1
M-352	410601	Y	MAIN TURBINE THROTTLE VALVE EMERG. OPERATING GEAR	1
H-353	410602	O	LIFTING GEAR MAIN PROPULSION MACHY.	0
H-354	410603	O	MISC. LIFTING GEAR MACHY. SPACES	1
H-355	4106032	O	MISC. LIFTING GEAR MACHY. SPACES	1
H-356	4106033	O	MISC. LIFTING GEAR MACHY. SPACES	0
H-357	4106034	O	MISC. LIFTING GEAR MACHY. SPACES	0
H-358	4106035	O	MACHINERY LIFTING DATA & PARTSLIST	1
M-359	430101	Y	ARRGT. OF SHAFTING	2
M-360	430102	Y	SHAFT FORGINGS (ROUGH TURNED)	0
M-361	4301021	Y	SHAFT FORGINGS(ROUGH TURNED) L/M	0
M-362	430103	Y	SHAFTING DETS.& COUPLING BOLTS	1
M-363	4301031	Y	SHAFTING DETS.& COUPLING BOLTSL/M	1
M-364	430104	Y	SHAFTING WRENCHES & PILGRIM NUTS WITHDRAWALS TOOLS	2
M-365	4301041	Y	SHAFTING WRENCHES & PILGRIM NUTS WITHDRAWAL TOOLS L/M	2

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-466	4800211	P	DISTILLER PACKAGE UNIT - PIP- ING L/M	0
M-467	4800212	P	DISTILLER PACKAGE UNIT - PIP- ING P/D	0
M-468	480023	P	H.P. TURBINE GIRDER PACKAGE UNIT	2
M-469	4800231	P	H.P. TURBINE GIRDER PACKAGE UNIT L/M	1
M-470	4800232	P	H.P. TURBINE GIRDER PACKAGE UNIT P/D	1
M-471	480024	P	L.O. & F.W. COOLER PACKAGE UNIT	0
M-472	4800241	P	L.O. & F.W. COOLERS PACKAGE UNIT L/M	0
M-473	4800242	P	L.O. & F.W. COOLERS PACKAGE UNIT P/D	2
M-474	480025	P	CONTAMINATED DRAIN INSPECTION TK. PACKAGE UNIT	1
M-475	4800251	P	CONTAMINATED DRAIN INSPECTION TK. PACKAGE UNIT L/M	1
M-476	4800252	P	CONTAMINATED DRAIN INSPECTION TK. PACKAGE UNIT P/D	2
M-477	480026	P	MAIN FEED PUMPS PACKAGE UNITS	3
M-478	4800261	P	MAIN FEED PUMPS PACKAGE UNITS L/M	2
M-479	4800262	P	MAIN FEED PUMPS PACKAGE UNITS P/D	3
M-480	480028	P	FATHOMETER & DOPPLER SPEED LOGCONDUIT PIPING	0
M-481	4800281	P	FATHOMETER & DOPPLER SPEED LOGCONDUIT PIPING L/M	0
M-482	4800282	P	FATHOMETER & DOPPLER SPEED LOGCONDUIT PIPING P/D	0
M-483	4800289	P	FATHOMETER & DOPPLER SPEED LOGCONDUIT PIPING	0
M-484	480101	Y	FWD. PORT BILGE SUCT. MANIFOLDASS'Y.	0
M-485	480102	Y	FWD. STB'D. BILGE SUCT. MANI- FOLD-ASS'Y.	0
M-486	480103	Y	AFT. PORT BILGE SUCT. MANIFOLDASS'Y.	1
M-487	480104	Y	AFT STB'D BILGE SUCT. MANIFOLDASS'Y.	1
M-488	480105	Y	FWD BALAST MANIFOLD-ASS'Y.	0
M-489	480106	Y	AFT BALLAST MANIFOLD ASSY. 70 PSI	1
M-490	480107	Y	WING TANK BALLAST MANIFOLD ASS'Y.	0
M-491	480110	M	DIAG. BILGE & CLEAN BALLAST SYSTEM	4
M-492	480112	P	BILGE & CLEAN BALLAST SYS MACHY. SPACE-PLAN	7
M-493	4801121	P	BILGE & CLEAN BALLAST SYS. MACHY. SPACE L/M	6
M-494	4801122	P	BILGE & CLEAN BALLAST SYS. MACHY. SPACE P/D	5
M-495	4801123	P	BILGE & CLEAN BALLAST SYS. MACHY. SPACE-SECTIONS	6
M-496	4801129	P	HOLE LIST BILGE & CLEAN BALL. SYS. MACHY. SP. (A501-A600)	3
M-497	480114	P	BILGE & CLEAN BALLAST SYSTEM AFT. FR. 95	1
M-498	4801141	P	BILGE & CLEAN BALLAST SYSTEM AFT. FR. 95 L/M	0
M-499	4801142	P	BILGE & CLEAN BALLAST SYS. AFTFR. 95 P/D	1
M-500	4801149	P	HOLE LIST BILGE & CLEAN BALLAST SYS. AFT. FR. 95 (A701	1
M-501	480115	P	FLUME TANKS PIPING ABV. INNER BOTTOM FWD.	0
M-502	4801151	P	FLUME TANKS PIPING ABV. INNER BOTTOM FWD. L/M	0
M-503	4801152	P	FLUME TANKS PIPING ABV. INNER BOTTOM FWD. P/D	0
M-504	4801159	P	HOLE LIST FLUME TANKS PIPING INNERBOTTOM FWD (A601-A700)	0
M-505	480116	Y	LARGE BILGE & BALLAST PUMP SUCTION MANIFOLD ASSY. 50 PSI	1
M-506	480117	Y	LARGE BILGE & BAL. PUMP DISCH.MANIFOLD ASS'Y.	1
M-507	480118	Y	SMALL BILGE & BAL. PUMP SUCT. MANIFOLD ASS'Y.	0
M-508	480119	Y	SMALL BILGE & BAL. PUMP DISCH.MANIFOLD ASS'Y.	0
M-509	480120	M	DIAGRAM PRIMING SYSTEM	1
M-510	480121	P	PRIMING SYSTEM	0
M-511	4801211	P	PRIMING SYS. L/M	0
M-512	4801212	P	PRIMING SYS. P/D	0
M-513	480132	Y	14" LARGE BILGE & BAL. PUMP SUCT. STRAINER(OFFSET) 50 PSI	1
M-514	480133	Y	8" SMALL BILGE & BALLAST PUMP SUCTION STRAINER(INLINE)30 PSI	2
M-515	480201	Y	300 GAL. CONT. DRAIN & INSPEC-TION TANK	1

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-516	4802011	Y	300 GAL. CONT. DRAIN & INSPEC-TION TANK L/M	1
M-517	480206	Y	BOILER COMPOUND FEED TANK	0
M-518	4802061	Y	BOILER COMPOUND FEED TANK L/M	0
M-519	480210	M	DIAG. L.P. FEED & CONDENSATE SYS.	1
M-520	480211	P	L. P. FEED & CONDENSATE SYS. PLANS	1
M-521	4802111	P	L.P. FEED & CONDENSATE SYS. PLANS L/M	1
M-522	4802112	P	L.P. FEED & CONDENSATE SYS. P/D	1
M-523	4802113	P	L.P. FEED & CONDENSATE SYSTEMSSECTIONS	1
M-524	4802119	P	HOLE LIST FOR L.P. FEED & CONDENSATE SYS.(A826-A900)	0
M-525	480212	P	VACUUM PUMPS PACKAGE UNIT	1
M-526	4802121	P	VACUUM PUMPS PACKAGE UNIT L/M	1
M-527	4802122	P	VACUUM PUMPS PACKAGE UNIT P/D	1
M-528	480220	M	DIAGRAM HIGH PRESSURE FEED ANDFEED TREAMENT SYSTEM	2
M-529	480221	P	H.P. FEED SYS. PLANS	1
M-530	4802211	P	H.P. FEED SYS. L/M	2
M-531	4802212	P	H.P. FEED SYS. P/D	1
M-532	4802213	P	H.P. FEED SYS. LOWER SECTIONS	1
M-533	4802214	P	H.P. FEED SYS. UPPER SECTIONS	1
M-534	4802219	P	HOLE LIST FOR H.P. FEED SYS. (A901 - A999)	1
M-535	480222	P	BOILER COMPOUND FEED TANK PKG.UNIT PIPING	0
M-536	4802221	P	BOILER COMPOUND FEED TANK PKG.UNIT PIPING L/M	0
M-537	480224	P	H.P. FEED SYS. PIPE HANGE ARRGT.	1
M-538	480230	M	DIAG. H.P. STEAM DRAINS	1
M-539	480231	P	H.P. STEAM DRAINS	2
M-540	4802311	P	H.P. STEAM DRAINS L/M	1
M-541	480240	M	DIAG. CONTAMINATED DRAINS SYS.	1
M-542	480241	P	CONTAMINATED DRAIN SYS. ENG. ROOM	0
M-543	4802411	P	CONTAMINATED DRAINS SYS. ENG. ROOM L/M	0
M-544	4802412	P	CONTAMINATED DRAIN SYS. ENG. ROOM P/D	0
M-545	4802419	P	HOLE LIST FOR CONTAMINATED DRAIN SYS. ENG. RM. (B76-B100)	1
M-546	480250	M	DIAG. L.P. STEAM DRAINS SYS.	0
M-547	480251	P	L.P. STEAM DRAINS SYS.	0
M-548	4802511	P	L.P. STEAM DRAINS SYS. L/M	0
M-549	480260	M	DIAG. TURBINE & MANEUVERING VALVE DRAINS	0
M-550	480261	P	TURBINE & MANEUVERING VALVE DRAINS SYS.	0
M-551	4802611	P	TURBINE & MANEUVERING VALVE DRAINS SYS. L/M	0
M-552	480270	M	DIAG. OPERATIONAL STEAM DRAINS	0
M-553	480271	P	CONTINUOUS OPERATIONAL STEAM DRAINS	1
M-554	4802711	P	CONTINUOUS OPERATIONAL STEAM DRAINS L/M	0
M-555	4802712	P	CONTINUOUS OPERATIONAL STEAM DRAINS P/D	0
M-556	480272	P	F.W. DRAIN TK PACKAGE UNIT	0
M-557	4802721	P	F.W. DRAIN TK PACKAGE UNIT L/M	0
M-558	4802722	P	F.W. DRAIN TK PACKAGE UNIT P/D	0
M-559	480273	P	1ST STAGE FEED HEATER & COOLER PACKAGE UNIT	0
M-560	4802731	P	1ST STAGE FEED HEATER & COOLER PACKAGE UNIT L/M	0
M-561	4802732	P	1ST STAGE FEED HEATER & COOLER PACKAGE UNIT P/D	0
H-562	480308	O	FIRE STATION CABINET & HOSE RACK DETAILS	1
M-563	480310	M	DIAG. FIREMAIN SYS. (SHT.1)	4
M-564	4803102	M	DIAG. FIREMAIN SYS. (SHT.2)	3
M-565	480311	P	FIREMAIN SYS. ENGINE ROOM SHAFT ALLEY PLANS	2

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-566	4803111	P	FIREMAIN SYS. ENGINE ROOM & SHAFT ALLEY L/M	1
M-567	4803112	P	FIREMAIN SYS. ENGINE ROOM & SHAFT ALLEY P/D	3
M-568	4803113	P	FIREMAIN SYS. ENGINE ROOM & SHAFT ALLEY SECTION	1
M-569	4803119	P	HOLE LIST FOR FIREMAIN SYS. ENGINE ROOM & SHAFT ALLEY	1
M-570	480312	Y	8"FIRE PUMP SUCTION STRAINER (INLINE)30 PSI(90-10)CU-NI	0
M-571	480313	P	FIREMAIN SYS. ON MAIN DECK AFT. FR. 52	0
M-572	4803131	P	FIREMAIN SYS. ON MAIN DECK AFT. OF FR.52 L/M	0
M-573	4803132	P	FIREMAIN SYS. ON MAIN DECK AFT. OF FR.52 P/D	0
M-574	480315	P	FIREMAIN SYS. STEERING GEAR FLAT & BELOW 2ND. DECK AFT.	0
M-575	4803151	P	FIREMAIN SYS. STEERING GEAR FLAT & BELOW 2ND. DECK AFT.	0
M-576	4803152	P	FIREMAIN SYS. STEERING GEAR FLAT & BELOW 2ND. DECK AFT.	0
M-577	4803159	P	HOLE LIST FOR FIREMAIN SYS. STEERING GEAR FLAT & BELOW	0
M-578	480317	V	FIREMAIN SYS. MAIN DECK FWD. FR.52	0
M-579	4803171	V	FIREMAIN SYS. MAIN DECK FWD. FR.52 L/M	0
M-580	4803172	V	FIREMAIN SYS. MAIN DECK FWD. FR.52 P/D	0
M-581	4803179	V	HOLE LIST FOR FIREMAIN SYS. MAIN DECK FWD. FR.52 (B401 -	0
M-582	480318	V	FIREMAIN SYS. UPPER DECK & ABOVE	3
M-583	4803181	V	FIREMAIN SYS. UPPER DECK & ABOVE L/M	2
M-584	4803182	V	FIREMAIN SYS. UPPER DECK & ABOVE P/D	3
M-585	4803189	V	HOLE LIST FOR FIREMAIN SYS. UPPER DECK & ABOVE (C226 -	2
M-586	480319	V	FIREMAIN SYS. 2ND. DECK & BELOW FWD. FR.52	2
M-587	4803191	V	FIREMAIN SYS. 2ND. DECK & BELOW FWD. FR.52 L/M	2
M-588	4803192	V	FIREMAIN SYS. 2ND. DECK & BELOW FWD. FR.52 P/D	2
M-589	4803199	V	HOLE LIST FOR FIREMAIN SYS. 2ND. DECK & BELOW FWD. FR.52	1
M-590	480410	M	DIAG. H & C POTABLE WATER SYS.	1
M-591	480411	P	H & C POTABLE WATER SYS. ENGINE ROOM PLAN	2
M-592	4804111	P	H & C POTABLE WATER SYS. ENGINE ROOM L/M	0
M-593	4804112	P	H & C POTABLE WATER SYS. ENGINE ROOM P/D	1
M-594	4804113	P	H & C POTABLE WATER SYS. ENGINE ROOM SECTIONS	2
M-595	4804119	P	HOLE LIST FOR H & C POTABLE WATER SYS. ENGINE ROOM (B901 -	1
M-596	480412	P	H.W. HEATER & PUMP-SEWAGE EQUIP. RM. PACKAGE UNIT	1
M-597	4804121	P	H.W. HEATER & PUMP-SEWAGE EQUIP. RM. PACKAGE UNIT L/M	1
M-598	4804122	P	H.W. HEATER & PUMP-SEWAGE EQUIP. RM. PACKAGE UNIT P/D	1
M-599	480413	P	H & C WATER SYS. 36'-0" LEVEL & BELOW FWD. FR.52	0
M-600	4804131	P	H & C WATER SYS. 36'-0" LEVEL & BELOW FWD. FR.52 L/M	0
M-601	4804132	P	H & C WATER SYS. 36'-0" LEVEL & BELOW FWD. FR.52 P/D	0
M-602	4804139	P	HOLE LIST FOR H & C WATER SYS.36'-0" LEVEL & BELOW FWD.	0
M-603	480414	Y	ELECT. HOT WATER STORAGE TANK ARRGT. 200 DEG.F.,100 PSI, 300	2
M-604	480415	P	POTABLE WATER PUMPS-PACKAGE UNIT-PIPING	1
M-605	4804151	P	POTABLE WATER PUMPS-PACKGE UNIT-PIPING L/M	2
M-606	4804152	P	POTABLE WATER PUMPS-PACKAGE UNIT-PIPING P/D	2
M-607	480416	V	H & C POTABLE WATER SYS. 2ND. DECK FWD. FR.52	3
M-608	4804161	V	H & C POTABLE WATER SYS. 2ND. DECK FWD. FR.52 L/M	4
M-609	4804162	V	H & C POTABLE WATER SYS. 2ND. DECK FWD. FR.52 P/D	0
M-610	4804169	V	HOLE LIST FOR POTABLE WATER SYS. 2ND. DECK FWD. FR.52	1
M-611	480417	V	H & C POTABLE WATER SYS. MAIN DECK FWD. FR.52	2
M-612	4804171	V	H & C POT. WATER SYS. MAIN DK.FWD. FR.52 L/M	2
M-613	4804179	V	HOLE LIST FOR H & C POT. WTR. SYS.MN.DK.FWD.FR.52(F201-F300)	0
M-614	480418	V	H & C POTABLE WATER SYS. UPPERDECK	3
M-615	4804181	V	H & C POT. WATER SYS. UPPER DECK L/M	3

RED. 6X DATE 7-81
MA.NO.336-337 AS1.NO.2307-2308
MICROFILM INDEX FRAME NO.3

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-716	480918	P	SOUNDING TUBES, VENTS & OVER- FLOWS FR.44-52	1
M-717	4809181	P	SOUNDING TUBES, VENTS & OVER- FLOWS FR.44-52 L/M	1
M-718	4809182	P	SOUNDING TUBES, VENTS & OVER- FLOWS FR.44-52 P/D	1
M-719	4809189	P	HOLE LIST SOUNDING TUBES,VENTS& OVFLS.FR.44-52	0
M-720	481001	M	HEAT BALANCE & FLOW DIAG. AT ABS RATED HP 32,000 SHP	0
M-721	481003	M	THERMAL STRESS CALCULATION MAIN STEAM PIPING	1
M-722	481004	Y	DYNAMIC STRESS ANALYSIS	0
M-723	481005	P	MAIN STEAM ISOMETRIC	2
M-724	481007	M	MAIN & AUXILIARY STEAM SYSTEM DESIGN CALCULATIONS	0
M-725	481010	M	DIAG. MAIN STEAM SYSTEM	1
M-726	481011	P	MAIN STEAM SYSTEM PLANS	2
M-727	4810111	P	MAIN STEAM SYS. L/M	3
M-728	4810112	P	MAIN STEAM SYS. P/D	3
M-729	4810113	P	MAIN STEAM SYSTEM SECTIONS	2
M-730	481012	P	MAIN STEAM PIPE HANGERS ARRGT.	3
M-731	481020	M	DIAG. AUX. STEAM SYSTEM (SH.1)	2
M-732	4810202	M	DIAG. AUX. STEAM SYSTEM(SH.2)	2
M-733	481021	P	AUX. STEAM SYS. 125# & ABOVE PLANS	3
M-734	4810211	P	AUX. STEAM SYS. 125# & ABOVE L/M	2
M-735	4810212	P	AUX. STEAM SYS. 125# & ABOVE P/D	4
M-736	4810213	P	AUX. STEAM SYS. 125# & ABOVE SECTIONS & ELEV.	1
M-737	4810214	P	AUX. STEAM SYS. 125# & ABOVE UPPER SECTIONS	1
M-738	4810219	P	HOLE LIST AUX. STEAM SYS. 125#& ABOVE(F101-F174)	0
M-739	481022	P	ARRGT. OF SOOT BLOWER STEAM PIPING	1
M-740	4810221	P	ARRGT. OF SOOT BLOWER STEAM PIPING L/M	0
M-741	4810222	P	ARRGT. OF SOOT BLOWER STEAM PIPING P/D	1
M-742	481024	P	AUXILIARY STEAM HANGER ARRGT.	1
M-743	481025	P	AUX. STEAM SYS. BELOW 125# PLANS	1
M-744	4810251	P	AUX. STEAM SYS. BELOW 125# L/M	1
M-745	4810252	P	AUX. STEAM SYS. BELOW# P/D	2
M-746	4810253	P	AUX. STEAM SYS. BELOW 125# SECTIONS & ELEV.	1
M-747	4810259	P	HOLE LIST AUX STEAM BELOW 125#(F175-F200)	0
M-748	481030	M	DIAG. BLEED & EXHAUST STEAM SYSTEM	1
M-749	481031	P	ARRGT. BLEED & EXHAUST STEAM SYS. PLANS	2
M-750	4810311	P	ARRGT. BLEED & EXHAUST STEAM SYS. L/M	3
M-751	4810312	P	ARRGT. BLEED & EXHAUST STEAM SYS. P/D	5
M-752	4810313	P	ARRGT. BLEED & EXHAUST STEAM SYS. SECTIONS	3
M-753	4810318	Y	NON-STANDARD HANGERS-BLEED & EXHAUST STEAM SYS	0
M-754	4810319	P	HOLE LIST ARRGT. BLEED & EXH. STEAM SYS.(K351-K400)	0
M-755	481032	P	BLEED & AUX. EXH. STEAM SYS. HANGER ARRGT.	1
M-756	481033	P	F.O. PACKAGE UNIT-STEAN & DRAINS	0
M-757	4810331	P	F. O. PACKAGE UNIT-STEAM & DRAINS L/M	0
M-758	481040	M	DIAG.BOILER BLOW,SAFETY VALVE FSC. & MISC. RELIEF VALVE FSC.	2
M-759	481041	P	SAFETY VALVE ESCAPES PIPING PLANS	1
M-760	4810411	P	SAFETY VALVE ESCAPES PIPING L/M	1
M-761	4810412	P	SAFETY VALVE ESCAPES PIPING P/D	3
M-762	4810413	P	SAFETY VALVE ESCAPES PIPING SECTIONS	1
M-763	4810419	P	HOLE LIST SAFETY VALVE ESCAPESPIPING(F681-F700)	0
M-764	481042	P	BOILER BLOW PIPING	0
M-765	4810421	P	BOILER BLOW PIPING L/M	0

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-666	4808152	P	PLB. & INT. DECK DRAINS 36'-0"LEVEL & BELOW FWD. FR.52 P/D	1
M-667	4808153	P	PLB. & INT. DECK DRAINS 36'-0"LEVEL & BELOW FWD. FR.52 SECT.	1
M-668	4808159	P	HOLE LIST FOR PLB. & INT. DECKDRAINS 36'-0" LEVEL & BELOW	1
M-669	480816	V	PLB. & INT. DECK DRAINS 2ND. DECK FWD. FR.52	1
M-670	4808161	V	PLB. & INT. DECK DRAINS 2ND DECK FWD. FR.52 L/M	1
M-671	4808162	V	PLB. & INT. DECK DRAINS 2ND DECK FWD. FR.52 P/D	1
M-672	4808169	V	HOLE LIST PLB.& INT.DK.DRNS. 2ND DK.FWD.FR.52(G501-G600)	0
M-673	480820	M	DIAG. REFRIG. SPACE & MISC. DRAINS FWD. FR.58	4
M-674	480821	P	REFRIGERATED SPACES & MISC. DECK DRAINS FWD. FR.58	2
M-675	4808211	P	REFRIGERATED SPACES & MISC. DECK DRAINS FWD. FR58 L/M	2
M-676	4808212	P	REFRIGERATED SPACES & MISC DK DRAINS FWD. FR. 58 P/D	2
M-677	4808219	P	HOLE LIST REFRIG.SPACES & MISCDK. DPNS.FWD.FR.58(C901-C999)	2
M-678	480830	M	DIAG. INT. & MISC. DK. DRAINS AFT. FR. 58	2
M-679	480834	P	INT. & MISC. DECK DRAINS AFT FR.58	1
M-680	4808341	P	INT. & MISC. DECK DRAINS AFT FR.58 L/M	1
M-681	4808342	P	INT. & MISC. DECK DRAINS AFT FR.58 P/D	1
M-682	4808349	P	HOLE LIST INT. & MISC.DK.DRNS.AFT FR.58(D301-D400)	1
M-683	480840	M	DIAG. WEATHER DK. & MISC. DK. DRAINS SUPERSTRUCTURE	0
M-684	480841	V	WEATHER DECK DRAINS UPPER LE- VEL & ABOVE	2
M-685	4808411	V	WEATHER DECK DRAINS UPPER LE- VEL & ABOVE L/M	2
M-686	480862	Y	500 GAL. SEWAGE HOLDING TANK	0
M-687	480910	M	DIAG. SOUNDING TUBES & VENTS. & OVERFLOWS (SH.1)	3
M-688	4809102	M	DIAG.SOUNDING TUBES & VENTS. &OVERFLOWS (SH.2)	3
M-689	480911	P	SOUNDING TUBES & VENTS FWD. FR.44	0
M-690	4809111	P	SOUNDING TUBES & VENTS FWD. FR.44 L/M	0
M-691	4809112	P	SOUNDING TUBES & VENTS FWD. FR.44 P/D	0
M-692	4809119	P	HOLE LIST SOUNDING TUBES & VENTS FWD.FR.44(D501-D600)	0
M-693	480913	P	SOUNDING TUBES, VENTS & OVER- FLOWS FR.52-61	1
M-694	4809131	P	SOUNDING TUBES, VENTS & OVER- FLOWS FR.52-61 L/M	1
M-695	4809132	P	SOUNDING TUBES, VENTS & OVER- FLOWS FR.52-61 P/D	1
M-696	4809139	P	HOLE LIST SOUNDING TUBES,VENTS& OVERFLOWS FR.52-61(D701-D755	1
M-697	480914	P	SOUNDING TUBES& VENTS. FR. 61-85	2
M-698	4809141	P	SOUNDING TUBES & VENTS. FR. 61-85 L/M	2
M-699	4809142	P	SOUNDING TUBES & VENTS. FR. 61-85 P/D	2
M-700	4809149	P	HOLE LIST SOUNDING TUBES & VENTS FR.61-85(D776-D830 &	0
M-701	480915	P	SOUNDING TUBES & VENTS.FRS.85-95 PLANS I.B. TO 22'-6"LEVEL	2
M-702	4809151	P	SOUNDING TUBES & VENTS. FRS.85-95 L/M	2
M-703	4809152	P	SOUNDING TUBES & VENTS. FRS.85-95 P/D	2
M-704	4809153	P	SOUNDING TUBES & VENTS.FRS.85-95 PLANS 31'-6"LEVEL TO MN DK	3
M-705	4809154	P	SOUNDING TUBES & VENTS FRS 85-88 SECTIONS	1
M-706	4809155	P	SOUNDING TUBE & VENTS. FRS. 89-95 SECTIONS	3
M-707	4809159	P	HOLE LIST SOUNDING TUBES & VENTS FR.89-95(D831-D899)	3
M-708	480916	P	SOUNDING TUBES, VENTS & OVER- FLOWS FR.95-101	1
M-709	4809161	P	SOUNDING TUBES, VENTS, & OVER-FLOWS FRS.95-101 L/M	1
M-710	4809162	P	SOUNDING TUBES, VENT, & OVER- FLOWS FRS.95-101 P/D	1
M-711	4809169	P	HOLE LIST SOUNDING TUBES,VENTS& OVFLS.FR.95-101(D201-D275)	1
M-712	480917	P	SOUNDING TUBES & VENTS FRS. 101-132	3
M-713	4809171	P	SOUNDING TUBES & VENTS FRS. 101-132	3
M-714	4809172	P	SOUNDING TUBES & VENTS FRS. 101-132 P/D	3
M-715	4809179	P	HOLE LIST SOUNDING TUBES & VENTSFR.101-132(D900-D988)	3

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-616	4804189	V	HOLE LIST FOR H & C POTABLE WATER SYS. UPPER DECK (F401 -	1
M-617	480419	V	H & C POTABLE WATER SYS. CABIN& BRIDGE DECKS	4
M-618	4804191	V	H & C POTABLE WATER SYS. CABIN& BRIDGE DECKS L/M	4
M-619	480420	M	DIAG. FRESH WATER COOLING SYS.	0
M-620	480421	P	FRESH WATER COOLING SYS. PLANS& SECTIONS	2
M-621	4804211	P	FRESH WATER COOLING SYS. L/M	1
M-622	4804212	P	FRESH WATER COOLING SYS. P/D	0
M-623	4804219	P	HOLE LIST FOR FRESH WATER COOLING SYS. (C101 - C200)	0
M-624	480422	Y	STEEL POTABLE WATER PRESSURE TANK ARRGT. 200 GAL. CAPACITY	0
M-625	480423	P	F.W. COOLING PUMPS PACKAGE UNIT	0
M-626	4804231	P	F.W. COOLING PUMPS PACKAGE UNIT L/M	0
M-627	4804232	P	F.W. COOLING PUMPS PACKAGE UNIT P/D	0
M-628	480510	M	DIAG. MAIN & AUX. CIRC. WATER	2
M-629	480511	P	MAIN & AUX. CIRC. WATER SYS. PLANS	2
M-630	4805111	P	MAIN & AUX. CIRC. WATER SYS. L/M	2
M-631	4805112	P	MAIN & AUX. CIRC. WATER SYS. P/D	3
M-632	4805113	P	MAIN & AUX. CIRC. WATER SYS. SECTIONS	2
M-633	4805119	P	HOLE LIST FOR MAIN & AUX. CIRCWATER SYS. (C201 - 225)	1
M-634	480520	M	DIAG. SALT WATER SERVICE SYS.	2
M-635	480521	P	SALT WATER SERVICE SYS. ENGINEROOM (PLANS&SECTIONS)	0
M-636	4805211	P	S.W. SERVICE SYS. ENGINE ROOM L/M	1
M-637	4805212	P	S.W. SERVICE SYS. ENGINE ROOM P/D	0
M-638	4805219	P	HOLE LIST FOR S.W. SERVICE SYS. ENGINE ROOM (C301 - C400)	0
M-639	480522	P	S.W. SERVICE SYS. FWD FR.52	0
M-640	4805221	P	S.W. SERVICE SYS. FWD. FR.52 L/M	0
M-641	4805222	P	S.W. SERVICE SYS. FWD. FR.52 P/D	0
M-642	4805229	P	HOLE LIST FOR S.W. SERVICE SYS. FWD. FR.52 (C401 - C500)	0
M-643	480523	P	A/C S.W. SERV. PUMPS & STRAI- NER PACKAGE UNIT	1
M-644	4805231	P	A/C S.W. SERV. PUMPS & STRANI-NER PACKAGE UNIT L/M	1
M-645	4805232	P	A/C S.W. SERV. PUMPS & STRAI- NER PACKAGE UNIT P/D	1
M-646	480524	Y	6" S.W. SERV PUMP SUCTION STRAINER(INLINE)30 PSI(90-10)	1
M-647	480810	M	DIAG. PLB. & INT. DECK DRAINS	1
M-648	480811	V	PLB. & INT. DECK DRAINS MAIN DECK FWD. FR.52	0
M-649	4808111	V	PLB. & INT. DECK DRAINS MAIN DECK FWD. FR.52 L/M	1
M-650	4808112	V	PLB. & INT. DECK DRAINS MAIN DECK FWD. FR.52 P/D	0
M-651	4808119	V	HOLE LIST FOR PLB. & INT. DECKDRAINS MAIN DECK FR.52	0
M-652	480812	P	PLB. & INT. DECK DRAINS AFT. FR.85	2
M-653	4808121	P	PLB. & INT. DECK DRAINS AFT. FR.85 L/M	0
M-654	4808122	P	PLB. & INT. DECK DRAINS AFT. FR.85 P/D	0
M-655	4808129	P	HOLE LIST FOR PLB.& INT. DK. DRAINS AFT FR.85(C726-C800)	1
M-656	480813	V	PLB. & INT. DECK DRAINS UPPER DECK	1
M-657	4808131	V	PLB. & INT. DECK DRAINS UPPER DECK L/M	2
M-658	4808132	V	PLB. & INT. DECK DRAINS UPPER DECK P/D	1
M-659	4808139	V	HOLE LIST FOR PLB. & INT. DECKDRAINS UPPER DK. (F901 - F999)	0
M-660	480814	V	PLB. & INT. DECK DRAINS CABIN & BRIDGE DECKS	1
M-661	4808141	V	PLB. & INT. DECK DRAINS CABIN & BRIDGE DECKS L/M	2
M-662	4808142	V	PLB. & INT. DECK DRAINS CABIN & BRIDGE DECKS P/D	1
M-663	4808149	V	HOLE LIST FOR PLB. & INT. DECKDRAINS CABIN & BRIDGE DECKS	0
M-664	480815	P	PLB. & INT. DECK DRAINS 36'-0"LEVEL & BELOW FWD. FR.52 PLAN	1
M-665	4808151	P	PLB. & INT. DECK DRAINS 36'-0"LEVEL & BELOW FWD. FR.52 L/M	1

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-766	481060	M	DIAG. GLAND SEAL & LEAKOFF SYS	1
M-767	481061	P	MAIN & AUX. TURBINE GLAND SEAL& LEAKOFF SYSTEM PLANS	0
M-768	4810611	P	MAIN & AUX. TURBINE GLAND SEAL& LEAKOFF SYSTEM L/M	0
M-769	4810612	P	MAIN & AUX. TURBINE GLAND SEAL& LEAKOFF SYSTEM P/D	1
M-770	4810613	P	MAIN & AUX. TURBINE GLAND SEAL& LEAKOFF SYS. SECTS.&ELEV.	0
H-771	482301	H	MAIN SEA CHEST	1
H-772	482302	H	SEA CHESTS S.W. SERVICE	0
M-773	482303	P	OVERBOARD DISCHARGE SHELL EXP.& LIST OF SEA VALVES	4
M-774	482304	Y	MAIN INJECTION SEA SCOOP & MN.OVERBOARD DISCHARGE	0
M-775	4823041	Y	MAIN INJECTION SEA SCOOP & MN.OVERBOARD DISCHARGE L/M	0
M-776	482305	Y	BILGE & BALLAST F.O. FILLING &TRANSFER SYS. MANIF. ARRGT.	2
M-777	482306	Y	SAFETY VALVE EASING GEAR	0
M-778	482307	Y	MISC. VALVE REMOTE OPERATORS &OPERATOR WRENCHES	2
M-779	482308	P	TYPICAL PIPE HANGERS	0
M-780	482310	P	OVERBOARD DISCHARGE DETAILS	6
M-781	4823101	P	OVERBOARD DISCHARGE DETS. L/M	2
M-782	482312	M	SCOOP DESIGN CALCS	0
M-783	482313	Y	REMOTE POSITION INDICATOR FOR SLIDING W.T. DOORS	2
H-784	482314	O	ARRGT. & DETS. OF GUARDS FOR PROPELLER SHAFT	1
M-785	482401	M	LIST OF RELIEF VALVES	3
M-786	482402	M	LIST OF CONTROL VALVES	0
M-787	482403	M	SCHEDULE OF POWER OPERATED VALVES	2
M-788	482404	M	LIST OF SENSORS	0
M-789	482405	M	LIST OF TRIAL SENSORS	0
M-790	490101	Y	AIR CYLINDER VALVE OPERATOR- ASSEMBLY (110 P.S.I. AIR)	2
M-791	490102	Y	10" AIR CYLINDER VALVE OPERA- TOR-ASSY.(110 P.S.I. AIR)	2
M-792	490103	Y	12" AIR CYLINDER VALVE OPERA- TOR-ASSY. (110 P.S.I. AIR)	2
M-793	490201	Y	80 CU. FT. SHIP'S SERVICE AIR RECEIVER	0
M-794	490202	Y	80 CU. FT. CONTROL AIR RECEI- VER	0
M-795	490203	Y	60 CU. FT. SHIP'S SERVICE AIR RECEIVER(STEEL GALV)	1
M-796	490210	M	DIAG.SHIP SERV.&STANDHY DIES. GEN. STARTING COMP. AIR	2
M-797	490211	P	S/S&DIESEL GEN. STARTING COMP.AIR SYS.MACHY.SPACE&SHAFT	2
M-798	4902111	P	S/S&DIESEL GEN. STARTING COMP.AIR SYS.MACHY.SP.& SHAFT ALLEY	1
M-799	490212	V	S/S COMP. AIR SYS. FWD FR.52	0
M-800	4902121	V	S/S COMP. AIR SYS. FWD. FR.52 L/M	0
M-801	490213	P	S/S COMP. AIR SYS. MAIN DECK AFT. FR.52, STACKHOUSE AND	0
M-802	4902131	P	S/S COMP. AIR SYS. MAIN DECK AFT. FR.52, STACKHOUSE AND	0
M-803	490220	M	DIAG. CONTROL AIR SYS.	0
M-804	490221	P	CONTROL AIR SYS.	1
M-805	4902211	P	CONTROL AIR SYS. L/M	1
M-806	490231	P	SOOT BLOWER AIR PIPING	1
M-807	4902311	P	SOOT BLOWER AIR PIPING L/M	1
M-808	510320	M	DIAG. ORSAT & BOILER DRAFT GAUGE SYS.	0
M-809	520001	V	UPTAKES & INNER STACKS ARRGT. & DETAILS	2
M-810	5200011	V	UPTAKES & INNER STACKS ARRGT. & DETAILS L/M	0
M-811	520002	Y	SMOKE INDICATOR PIPING ARRGT. DETAILS	0
M-812	520003	Y	OPERATING GEAR FOR FORCED DRAFT FAN DAMPERS	0
M-813	520004	Y	EMERGENCY DIESEL EXH. PIPING ARRGT. DETAILS	1
M-814	5200041	Y	EMERGENCY DIESEL EXH. PIPING L/M	1
M-815	5200042	Y	EMERGENCY DIESEL EXH. PIPING P/D	1

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	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-816	520006	Y	STANDBY DIESEL GEN. EXH. PIPING ARRGT. PLANS & SECTIONS	1
M-817	5200061	Y	STANDBY DIESEL GEN. EXH. PIPING L/M	1
M-818	5200062	Y	STANDBY DIESEL GEN. EXH. PIPING P/D	1
M-819	5200063	Y	STANDBY DIESEL GEN. EXH. PIPING SUPPORT ARRGT. & DETS.	0
M-820	530001	V	FORCED DRAFT BLOWER DUCTS	1
M-821	5300011	V	FORCED DRAFT BLOWER DUCTS L/M	1
M-822	530003	M	FORCED DRAFT SYS. CALCU.	0
M-823	530010	M	DIAG. BOILER CASING SEALING AIR	0
M-824	530011	P	ARRGT. OF BOILER CASING SEALING AIR PLANS	1
M-825	5300111	P	ARRGT. OF BOILER CASING SEALING AIR L/M	0
M-826	5300112	P	ARRGT. OF BOILER CASING SEALING AIR P/D	0
M-827	5300113	P	ARRGT. OF BOILER CASING SEALING AIR SECTION	0
M-828	550110	M	DIAG. FUEL OIL FILLING & TRANSFER SYS.	2
M-829	550111	P	F.O. TRANSFER PUMP & STRAINER PACKAGE UNIT	1
M-830	5501111	P	F.O. TRANSFER PUMP & STRAINER PACKAGE UNIT L/M	1
M-831	5501112	P	F.O. TRANSFER PUMP & STRAINER PACKAGE UNIT P/D	2
M-832	550113	P	F.O. FILL & TRANSFER MACHY. SPACE & SHAFT ALLEY PLANS	2
M-833	5501131	P	F.O. FILL & TRANSFER MACHY. SPACE & SHAFT ALLEY L/M	1
M-834	5501132	P	F.O. FILL & TRANSFER MACHY. SPACE & SHAFT ALLEY P/D	1
M-835	5501139	P	HOLE LIST FOR F.O. FILL & TRANSFER MACHY. SPACE & SHAFT	2
M-836	550115	Y	F.O. TRANSFER MANIFOLD ASS'Y.	0
M-837	550116	Y	8" F.O. TRANS. PUMP SUCTION STRAINER(INLINE)110 PSI STL	1
M-838	550120	M	DIAG. F.O. SERVICE SYS.	2
M-839	550121	P	F.O. SERVICE SYS. PLANS	2
M-840	5501211	P	F.O. SERVICE SYS. L/M	2
M-841	5501212	P	F.O. SERVICE SYS. P/D	2
M-842	5501213	P	F.O. SERVICE SYS. SECTIONS & ELEV.	2
M-843	5501219	P	HOLE LIST FOR F.O. SERVICE SYS(J501 - J600)	0
M-844	550122	P	F.O. PACKAGE UNIT F.O. SERVICEPIPING	1
M-845	5501221	P	F.O. PACKAGE UNIT F.O. SERVICEPIPING L/M	0
M-846	5501222	P	F.O. PACKAGE UNIT F.O. SERVICEPIPING P/D	2
M-847	550124	Y	F.O. PACKAGE UNIT SKID DETS.	2
M-848	550125	Y	F.O. PACKAGE UNIT GAGE BOARD DETS.	0
M-849	550130	M	DIAG. DIESEL OIL FILL, TRANS. SERVICE SYS. & MISC. OIL TANK	3
M-850	550131	P	D.O. FILLING, TRANSFER & OVER-FLOWS MACHY. SPACE	1
M-851	5501311	P	D.O. FILLING, TRANSFER & OVER-FLOWS MACHY. SPACE L/M	0
M-852	5501312	P	D.O. FILLING, TRANSFER & OVER-FLOWS MACHY. SPACE P/D	1
M-853	5501319	P	HOLE LIST FOR D.O. FILLING, TRANSFER & OVERFLOWS MACHY.	0
H-854	550133	H	400 GAL. EMER. DIESEL GEN. D.O. DAY TANK	1
M-855	550310	M	DIAG. F.O. & L.O. TANK HTG.	1
M-856	550311	P	HTG. GRIDS & STM. DRAINS IN L.O. SETTING GRAVITY & OIL	1
M-857	5503111	P	HTG. GRIDS & STM. DRAINS IN L.O. SETTLING GRAVITY & OIL	1
M-858	550312	P	HTG. GRIDS & STEAM DRAINS IN F.O. TANKS FWD. FR.79	3
M-859	5503121	P	HTG. GRIDS & STEAM DRAINS IN F.O. TANKS FWD. FR.79 L/M	3
M-860	5503122	P	HTG. GRIDS & STEAM DRAINS IN F.O. TANKS FWD. FR.79 P/D	3
M-861	5503129	P	HTG. GRIDS & STEAM DRAINS IN F.O. TANKS FWD. FR.79 H/L	1
M-862	550314	P	HTG. GRIDS & STEAM DRAINS IN F.O. TANKS AFT. BHD. 95	1
M-863	5503141	P	HTG. GRIDS & STEAM DRAINS IN F.O. TANKS AFT. BHD. 95 L/M	1
M-864	5503142	P	HTG. GRIDS & STEAM DRAINS IN F.O. TANKS AFT. BHD. 95 P/D	2
M-865	580012	P	BRINE PUMP & ACID TANK PACKAGEUNIT	0

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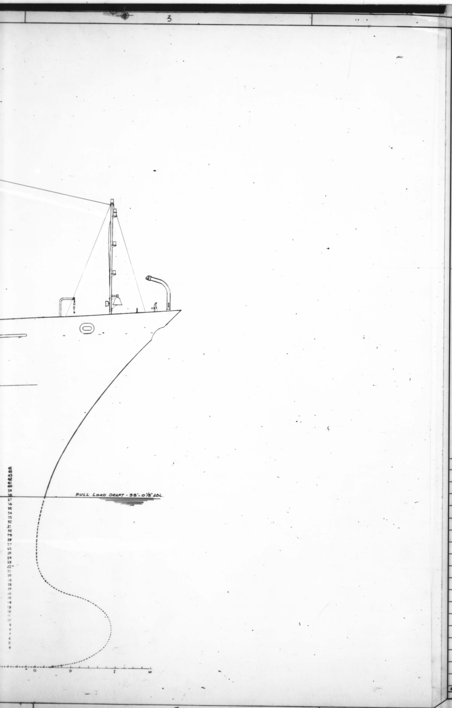
	DRAWING#	SECTION	DRAWING TITLE	REVISION
M-866	5800121	P	BRINE PUMP & ACID TANK PACKAGEUNIT L/M	1
M-867	5800122	P	BRINE PUMP & ACID TANK PACKAGEUNIT P/D	0
M-868	580110	M	DIAG. DISTILLING PLANT PIPING	1
M-869	580111	P	DISTILLING PLANT PIPING	1
M-870	5801111	P	DISTILLING PLANT PIPING L/M	0
M-871	5801112	P	DISTILLING PLANT PIPING P/D	1
M-872	5801119	P	HOLE LIST DISTILLING PLANT PIPING (K301 - K350)	1
M-873	590110	V	DIAGRAM A/C FREON SYSTEM	0
M-874	590111	V	A/C FREON PIPING ARRGT. CABIN DK FAN ROOM	0
M-875	5901111	V	A/C FREON PIPING ARRGT. CABIN DK. FAN ROOM L/M	1
M-876	5901112	V	A/C FREON PIPING ARRGT. CABIN DK. FAN ROOM P/D	0
M-877	590112	V	A/C FREON PIPING ARRGT. OUT- SIDE CABIN DK. FAN ROOM	1
M-878	5901121	V	A/C FREON PIPING ARRGT. OUT- SIDE CABIN DECK FANROOM L/M	1
M-879	5901122	V	A/C FREON PIPING ARRGT. OUT- SIDE CABIN DECK FAN ROOM P/D	1
M-880	5901129	V	HOLE LIST FOR A/C FREON PIPINGARRGT.OUTSIDE CABIN DK.FAN RM	0
E-881	600001	E	ELECTRICAL CABLE & EQUIP. TYPICAL METHODS OF INSTALL. &	1
E-882	600002	E	WIREWAY DETS. MACHY. SPACE (12'-6"& 22'-6" LEVELS) SH.1	2
E-883	6000022	E	WIREWAY DETS. MACHY. SPACE (40'-0" & 50'-0" LEVELS) SH.2	2
E-884	600003	E	WIREWAY DETAILS PIPE & ACCESS TUNNEL P/S BET. FRS.52 & 85 &	1
E-885	600004	E	WIREWAY DETS. 2ND DK. AFT OF FR. 121 & STACKHOUSE PORT	0
E-886	600005	E	WIREWAY DETS. MN. DK. & 2ND DKFWD. FR. 52	2
E-887	600006	E	WIREWAY DETAILS 36'& 40' FLATSFWD.	4
E-888	600007	E	WIREWAY DETS. UPPER DECK & ABOVE	3
E-889	600008	E	BHD. & DECK PENETRATIONS FOR ELECTRICAL DISTRIBUTION WIRE-	2
E-890	600009	E	LIST OF HOLES FOR FOR WIREWAYS(BOOKLET) YARD INFO ONLY	3
E-891	600010	E	LIGHTER & CONTAINER CRANES CA-BLE TRAYS LOCATION & DETAILS	2
E-892	610001	E	GENERATOR LOAD ANALYSIS	1
E-893	610002	E	ARRGT. OF ELECT. EQUIP. EMER- GENCY GENERATOR ROOM	2
E-894	620001	E	FAULT CURRENT ANALYSIS	1
E-895	620002	E	POWER SYS. LIST OF FEEDERS & MAINS	2
E-896	620003	E	POWER SYSTEM - CONNECTION DE- TAILS	3
E-897	620201	E	POWER DISTRIBUTION ONE LINE DIAGRAM(450V PRIMARY SYS)	7
E-898	6202012	E	POWER DISTRIBUTION ONE LINE DIAGRAM(GROUP CONTROL CENTERS)	6
E-899	6202013	E	POWER DISTRIBUTION ONE-LINE DIAGRAM (450V. PWR DISTRIBU-	6
E-900	6202014	E	POWER DISTRIBUTION ONE LINE DIAGRAM(120V PWR PNLS GALLEY	7
E-901	620202	E	POWER SYS. ISOM. W.D. OF FEEDERS(INSIDE MACHY. SPACE)	4
E-902	6202022	E	POWER SYS. ISOM. W.D. OF FEEDERS(OUTSIDE MACHY.SPACE)	4
E-903	620203	E	POWER SYS. MACHY. SPACE (GROUPCONTROL CENTERS "A","B"C")	2
E-904	620204	E	POWER SYS. MACHY. SPACE (GENER-AL)	4
E-905	620205	E	POWER SYS. MAIN & 2ND DECK AFT	2
E-906	620207	E	POWER SYS. 2ND DK. FWD. & BE- LOW	3
E-907	6202072	E	POWER SYS. 2ND DK. FWD. & BE- LOW	3
E-908	620208	E	POWER SYS. MAIN DECK FWD.	3
E-909	620209	E	POWER SYS. UPPER DECK & ABOVE	2
E-910	620211	E	CO2 SYS. ELECTRICAL CONNS.ISOMW.D.	2
E-911	620212	E	POWER OPERATED VALVES ISOM. W.D.	1
E-912	620213	E	POWER OPERATED VALVES ELEM. W.D.	2
E-913	620215	E	CATHODIC PROTECTION SYS. ELEM.& ISOM. W.D.	1
E-914	620216	E	CONSTRUCTION DETS. FOR F.O. VALVE P.B. STA.	0
E-915	630101	E	LIST OF MOTORS & CONTROLLERS	0

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	DRAWING#	SECTION	DRAWING TITLE & REVISION	
E-916	640101	E	LIGHTING SYS. LIST OF FEEDERS & MAINS	0
E-917	640103	E	LIGHTING SYS.ISOM. W.D. OF FEEDERS	2
E-918	6401032	E	LIGHTING SYS. ISOM. W.D. OF FEEDERS	0
E-919	640104	E	LIGHTING SYS. MACHINERY SPACE	4
E-920	640105	E	LIGHTING SYS.4TH LEVEL & BELOWFWD.	2
E-921	640106	E	LIGHTING SYS.4TH LEVEL & BELOWAFT	1
E-922	640107	E	LIGHTING SYS. 3RD LEVEL FWD. &MISC. FLATS FWD.	4
E-923	640108	E	LIGHTING SYS. 3RD LEVEL AFT	0
E-924	640109	E	LIGHTING SYS. 2ND LEVEL FWD.	2
E-925	640110	E	LIGHTING SYS. 2ND LEVEL AFT	2
E-926	640111	E	LIGHTING SYS. MAIN DECK FWD.	2
E-927	640112	E	LIGHTING SYS. MAIN DECK AFT	3
E-928	640113	E	LIGHTING SYS. UPPER DECK	3
E-929	640114	E	LIGHTING SYS. CABIN DECK & ABOVE	3
E-930	640115	E	RUNNING, ANCHOR & SIGNAL LIGHT-S ELEM. & ISOM. W.D.	1
E-931	650001	E	ENGINE ROOM CONSOLE HOOKUP (YARDINFRO ONLY)	0
E-932	650002	E	BRIDGE CONSOLE HOOKUP(YARD IN-FO ONLY)	1
E-933	650101	E	SOUND POWERED TELE, SYS. CKTS.1JV, 3JV, 4JV,& 5JV ISOM. W.D.	2
E-934	6501012	E	SOUND POWERED TELE. SYS. CKTS.1JV,3JV, 4JV & 5JV, ISOM. W.D.	1
E-935	650102	E	SOUND POWERED TELE. SYS. CKTS.1JV, 3JV, 4JV & 5JV ELEM.W.D.	1
E-936	650103	E	AUTO DIAL TELEPHONE SYSTEM ISOM. W.D.	2
E-937	6501032	E	AUTO DIAL TELEPHONE SYS. ISOM.W.D.	1
E-938	650104	E	AUTO DIAL TELEPHONE SYSTEM ELEM.W.D.	2
E-939	650201	E	RADIO BROADCAST & TELEVISION ANTENNA DISTR. SYS. BLOCK &	2
E-940	650301	E	VOICE TUBES LOCATIONS & DETS.	0
E-941	650401	E	GENERAL ALARM SYS. ISOM. W.D. & CONN. DETS. (SH.1)	0
E-942	6504012	E	GENERAL ALARM SYS. ISOM. W.D. & CONN. DETS. (SH.2)	0
E-943	6504013	E	GENERAL ALARM SYS. ISOM. W.D. & CONN. DETS. (SH.3)	0
E-944	650402	E	ENGINEERS ALARM SYS. ISOM. W.D& CONN. DETAILS	1
E-945	650501	E	GYRO COMPASS & STEERING CON- TROL TRANSMISSION SYS ISOM.	2
E-946	650502	E	GYRO COMPASS & STEERING CON- TROL TRANSMISSION SYS. ELEM.	2
E-947	650503	E	SHIPS CONTROL SYS. CKTS. MB,W,K & NISOM. W.D.	1
E-948	650504	E	SHIP'S CONTROL SYS. CKTS. MB, W, K & N ELEM. W.D.	0
E-949	650505	E	ENGR'S WATCH & DECK WATCH CALLSYS. ISOM. W.D.	0
E-950	650506	E	ENGR'S WATCH & DECK WATCH CALLSYS. ELEM. W.D.	0
E-951	650507	E	WHEELHOUSE ALARMS & SMOKE DETECTOR SYSTEMS & ISOM. W.D.	0
E-952	650508	E	WHEELHOUSE ALARMS & SMOKE DETECTOR SYSTEMS ELEM. W.D.	0
E-953	650509	E	D.O. & F.O. HIGH LEVEL ALARM SYSTEMS ISOM. & ELEM. W.D.	1
E-954	650511	E	SALINITY INDICATING SYS. ELEM.& ISOM W.D.	0
E-955	650512	E	CENTRAL CONSOLE ANNUN. & ALARMSYS. ISOM. W.D.	2
E-956	650513	E	CENTRAL CONSOLE ANNUN. & ALARMSYS. ELEM. W.D.	2
E-957	650514	E	MAIN PROPULSION CONTROL SYS. ISOM. W.D.	1
E-958	650515	E	MAIN PROPULSION CONTROL SYS. ELEM. W.D.	1
E-959	650516	E	FLAME SAFEGUARD & MAIN FEED PUMP CONT. SYS. ISOM. W.D.	0
E-960	650517	E	FLAME SAFEGUARD & MAIN FEED PUMP CONT. SYS. ELEM. W.D.	0
E-961	650518	E	CENTRAL CONSOLE TEMPERATURE MONITORING SYS. ISOM. W.D.	1
E-962	650519	E	CENTRAL CONSOLE TEMPERATURE MONITORING SYS. ELEM. W.D.	1
E-963	650522	E	SHIP PUBLIC ADDRESS & BRIDGE WING COMM. SYS-CKTS. 1PA & BIC	2
E-964	650523	E	SHIP PUBLIC ADDRESS & BRIDGE WING COMM. SYS-CKTS 1PA & BIC	2
E-965	650524	E	WIND SPEED & DIRECTION SYS. ELEM. & ISOM. W.D.	0

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	DRAWING#	SECTION	DRAWING TITLE & REVISION	
E-966	650525	E	SHIPS ELECTRIC CLOCK SYSTEM ISOM. W.D.	0
E-967	650526	E	SHIPS ELECTRIC CLOCK SYSTEM ELEM. W.D.	0
E-968	650527	E	MISC. INSTRUMENTATION SYS ISOMWIRING DIAGRAM	0
E-969	650528	E	MISC. INSTRUMENTATION SYS ELEMWIRING DIAGRAM	0
E-970	670001	E	ARRGT. OF RADIO ROOM	2
E-971	670101	E	ECHO DEPTH SOUNDER & DOPPLER SPEED LOG-ELEM & ISOM W.D.	2
E-972	670102	E	RADIO & ADF SYS.-ISOM. W.D.- CKTS. R-1R & R-DF	0
E-973	670103	E	ANTENNA LOCATIONS & DETS.	2
E-974	670104	E	RADIO & ADF SYS.-ELEM. W.D.- CKTS. R-1R & R-DF	1
E-975	670105	E	SATELLITE COMMUNICATION & FAC-SIMILE SYS.ISOM.& ELEM. W.D.	1
E-976	670201	E	RADAR SYSTEM ISOM. W.D.	0
E-977	670202	E	WAVEGUIDE ARRGT. & DETS.	0
E-978	670203	E	RADAR SYSTEMS ELEM. W.D.	3
E-979	670204	E	COLLISION AVOIDANCE, LORAN & SATELLITE NAVIGATION SYS.-ISOM	2
E-980	670205	E	COLLISION AVOIDANCE, LORAN & SATELLITE NAVIGATION SYS. ELEM	3
H-981	670901	O	ARRGT. & DETS. DRIPSHIELD FOR ENG. ROOM CONSOLE	1
H-982	700102	O	PYROTECHNIC BOX	0
H-983	820101	O	LIFEBOAT HANDLING & INFLATABLERAFTS	1
M-984	670001	P	LIST OF GAUGES	2
M-985	870002	P	LIST OF THERMOMETERS	3
M-986	670003	P	TANK LEVEL INDICATOR SYS. FWD.FR.85	1
M-987	8700031	P	TANK LEVEL INDICATOR SYS. FWD.FR.85 L/M	1
M-988	670004	P	TANK LEVEL INDICATOR SYS. AFT.FR.85	1
M-989	8700041	P	TANK LEVEL INDICATOR SYS. AFT.FR.85 L/M	1
M-990	870007	P	INSTRUMENTATION DETAILS	3
M-991	8700071	P	INSTRUMENTATION L/M	1
M-992	670010	M	DIAG. TANK LEVEL INDICATING SYS.	1
H-993	910101	O	ARRGT. & DETS. ENGINEER'S WORK-SHOP	3
H-994	910102	O	WORKBENCHES-BURNER CLEANING, L.O. PURIFIER, SEWAGE DISPOSAL	0
H-995	910103	O	ELECTRICIAN'S WORKSHOP	1
H-996	920001	O	WRENCH LIST	0
H-997	940001	O	FIRE CONTROL PLAN	2
H-998	9400012	O	LIST OF FIRE & SAFETY DEVICES	2



GENERAL NOTES

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-01 (W) REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGT'S.
1		1. RELEASED RESERVATIONS NO 1, 2, & 3 2. ADDED SUEZ CANAL DAVIT, ON FOCSLE, UPPER DK 3. ADDED MASTHEAD, UPPER TOWING & LOWER TOWING LIGHTS ON JACKSTAFF, FOCSLE. 4. REVISED LOCATION CONTAINER CRANE & LIGHTER CRANE IN STOWED POSITIONS 5. REVISED LOCATION JACOBS LADDER & POWERED PILOTS LADDER FR 65-66 (P/S) & ADDED FLOODLIGHTS TO SUIT. 6. ADDED PANAMA CANAL PILOTS SHELTER (P/S) FR 106 7. ADDED AFT TOWING LIGHT & STERN LIGHTS @ PLATFORM 69'-6" ABL ON CRANEWAY EXTENSION (P) 8. ADDED N.V.C. LIGHT MAST ON CONTAINER CRANE (STBD) ABOVE ITEMS TO SUIT DEVELOPMENT
2	5	1. REVISED TO SUIT LATEST FOREMAST ARRGTS ABOVE ITEM TO SUIT OWNERS COMMENTS

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G UR L-772/406 DTD JUNE 27, 1978		H 2429 DTD JUL 27, 1978	AF 445-117 DTD JULY 10, 1978	
1	5-23-79	F&G LTR SEENFL-777/702 DATED JUNE 25, 1979				BF/L4-3NDF/RCB-17 JUNE 5, 1979
2	9/29/80	F & G 10-24-80				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
3	~~RESERVED PIPING ON MAIN DK. PENDING DEVELOPMENT~~
2.	~~RESERVED STORES CRANE PENDING DEVELOPMENT.~~
1.	~~RESERVED MOORING ARRGT. PENDING DEVELOPMENT.~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

GENERAL ARRG'T
OUTBOARD PROFILE

DRAWN BY FWR DATE 5-31-78
CHECKED BY GJL DATE 6-7-78
APVD 6/13/78
APVD PROJECT MANAGER J.J. Murphy 6-14-78
APVD VP/CHIEF ENGINEER

SIZE H | A S I DWG NO C7-1000 01-03-01 | REV 2
SCALE 3/16" = 1'-0"

A S I DWG NO C7-1000 01-03-01 REV 2

TITLE	DRAWING NO

REFERENCES

DISTRIBUTION

DEPARTMENT	0	1	2
PRODUCTION	12	18	20
PROD PLANNING		1	1
MOLD LOFT			
ESTIMATING			
PROJECT MANAGER	1	1	1
QUALITY CONTROL	2	2	2
COMPUTER APPL			
ELECTRICAL	1	1	1
ENGR STANDARDS			
FILES & RECORDS	1	1	1
HULL			
HULL COMPOSITE	1	1	
DESIGN	1	1	1
OUTFITTING	1	1	
STL TAKE OFF			
H V A C			
MATERIAL REQN	2	2	1
MECHANICAL	1	1	
MECH COMPOSITE			
RESEARCH & DEV			
BAYOU BLACK			
HARVEY			
INDUSTRIAL DIV			
SERVICE FOUNDRY			
JOINER CONTRACTOR	1	1	
ADMEASURER			
ABS (NY)	4		
ABS (NO)			
ABS (YARD)		1	1
USCG (NO)	2		
USCG (YARD)		1	1
USPHS	2		
OWNER (HOME)	1	1	4
OWNER (YARD)			
MARAD (WASH)			1
MARAD (YARD)	1	1	1
Friede & Goldman	3	3	3
F & G (Y)		1	1
Al Pi			1
Hopeman			1
Sig Solanes			1
TOTAL	37	34	43
DATE OF PRINT ISSUE	[illegible]	[illegible]	[illegible]

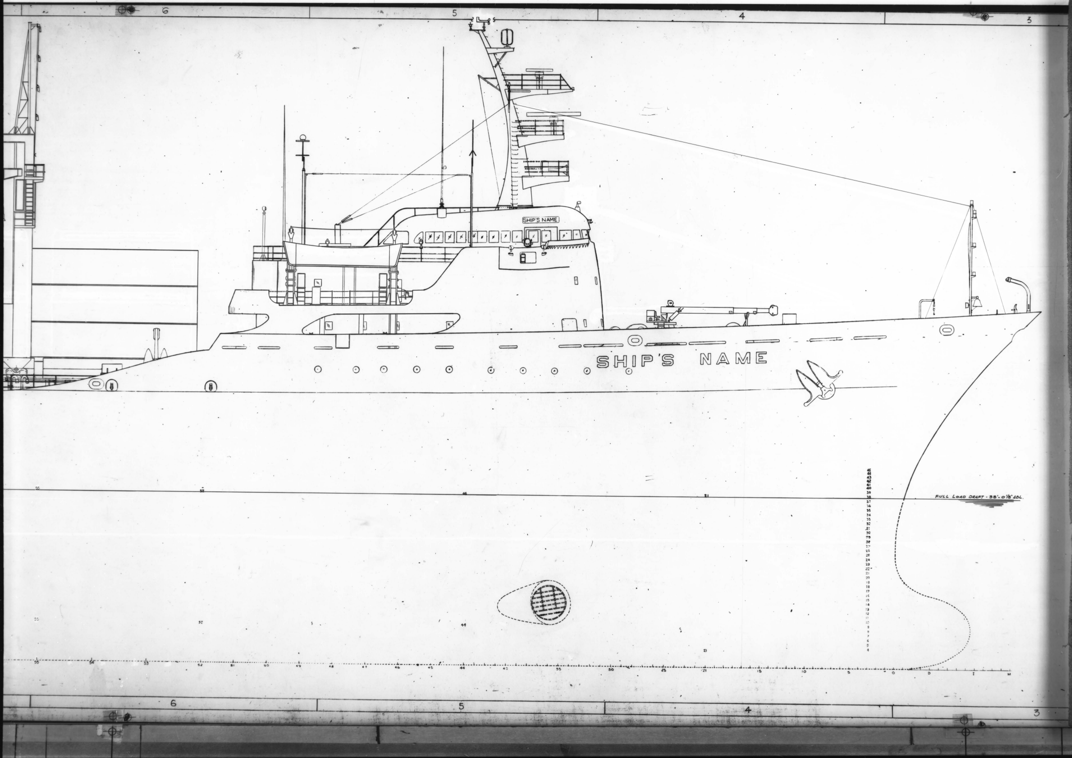
C7-1000 01-03-01

DISTRIBUTION

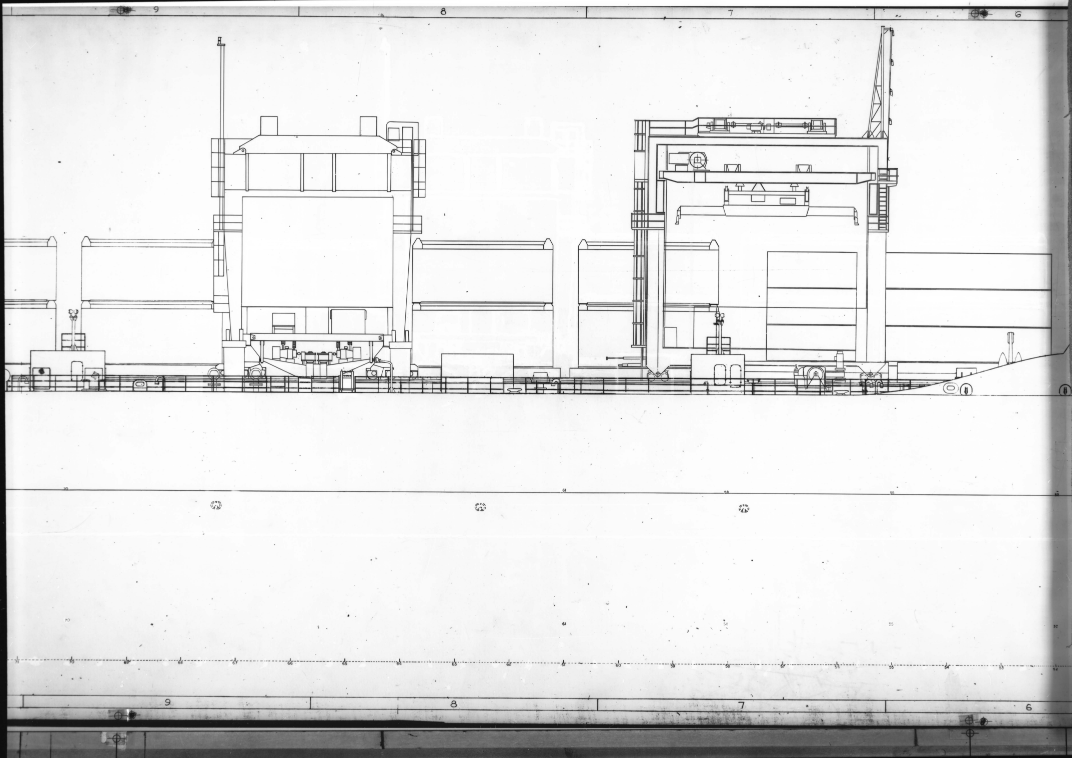
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

C7-1000 01-03-01

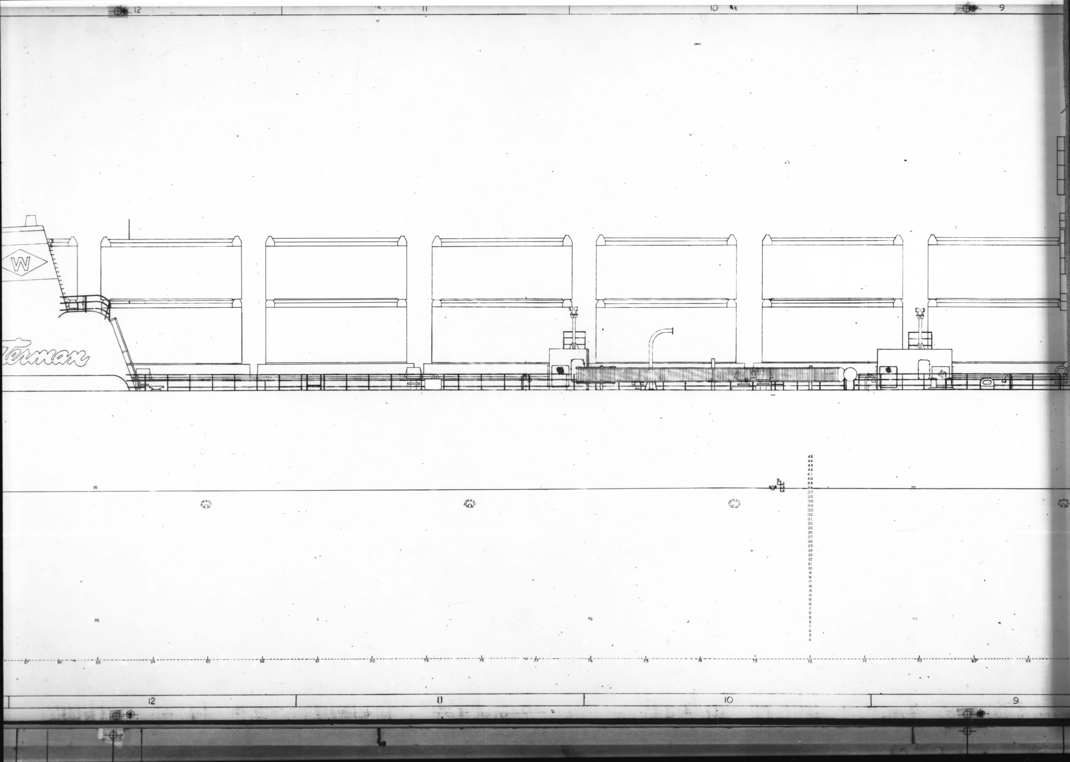
RED. 8X DATE 7-81
MA. NO. H-1 BLDR. NO. 01-03-01
FRAME NO. 1

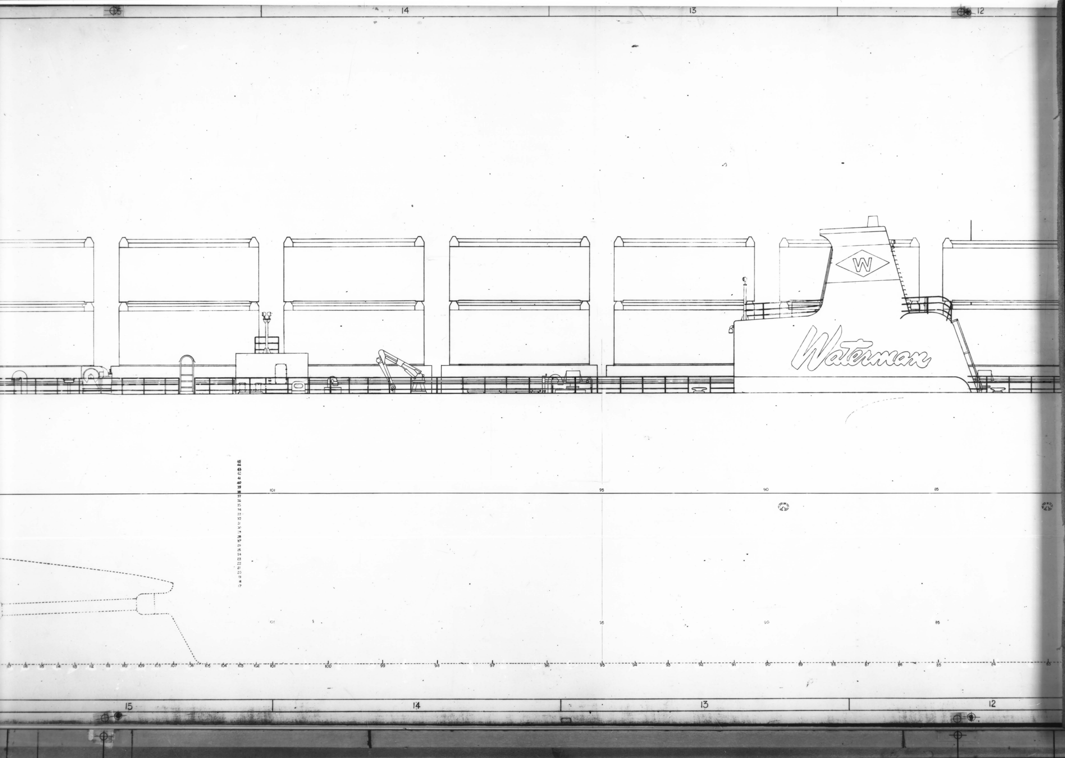


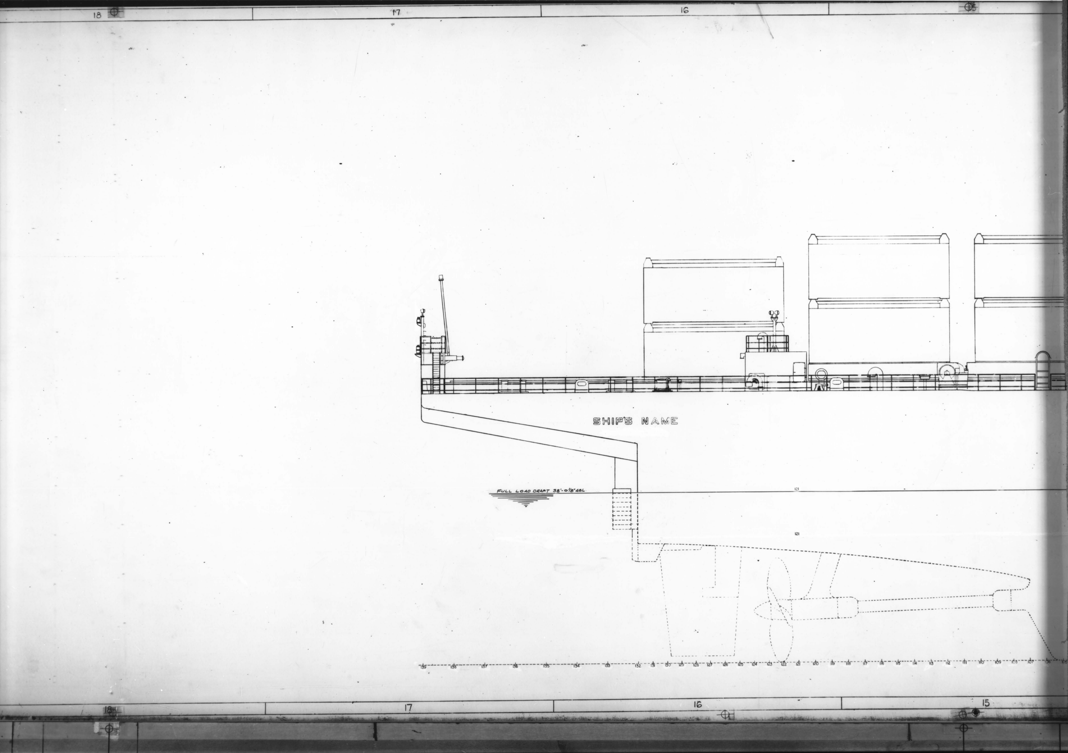
RED. 8X DATE 7-81
MA. NO. H-1 BLDR. NO. 01-03-01
FRAME NO. 2



9
8
7
6


12
11
10
9


15
14
13
12
W
Waterman


SHIP'S NAME
FULL LOAD DRAFT 38'-0 1/8" ABL

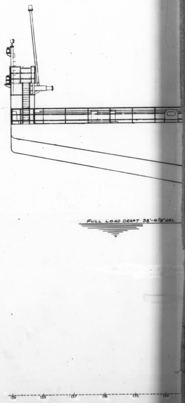
18 17

D

C

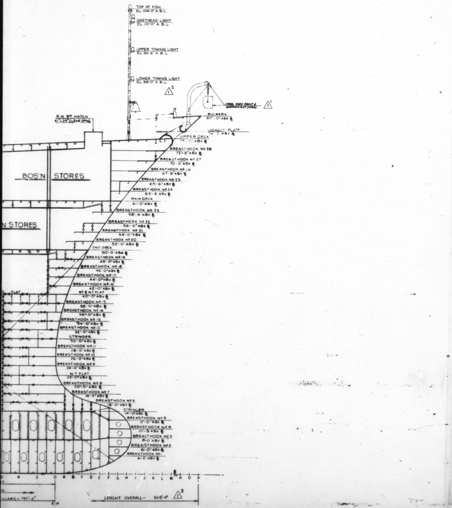
B

A



18 17

RED. 8X DATE 7-81
MA. NO. H-2 BLDR. NO. 01-03-02
FRAME NO. 1



GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF. NO. 1

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-02 (W) REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGT'S.
1		1. ADDED SUEZ CANAL DAVIT & SEARCH LIGHT @ FOC'SLE BULWARK FWD OF LOOKOUT PLTF 2. ADDED MASTHEAD, UPPER & LOWER TOWING LIGHTS & ELEVATIONS @ JACKSTAFF 3. INDICATED OVERALL LENGTH BELOW FOREPEAK & STERN 4. REVISED CHAIN LOCKER TO SUIT DEVELOPMENT 5. DELETED INDICATION OF FWD FUEL OIL OVERFLOW TANK FR 44-45, 36'-0" LEVEL 6. REVISED BOW THRUSTER MACHY ROOM & BOW THRUSTER ROOM TO SUIT STRUCTURAL CHANGES & ADDED MACHINERY & ACCESS LDRS 7. REVISED CONTAINER CRANE LOCATION IN STOWED POSITION 8. REVISED LOCATION LIGHTER HANDLING GANTRY CRANE IN STOWED POSITION 9. ADDED VENTS & STRUCTURE @ TOP OF MACHY CASING FRS 85-90 10. DELETED INCLINED LDRS (P/S) FR 115-117 & ADDED VERTICAL LDR @ FR 118 & VERTICAL LDR 11. ADDED AFT TOWING LIGHT 77'-4" ABL @ PLTF 69'-6" ABL & ADDED VERTICAL LDR 12. ADDED R.H.W.T. HATCH BETWEEN FRS 28-31 UPPERDECK, 18" OFF ℄ (P) 13. ADDED N.V.C. LIGHT MAST ON CONTAINER CRANE PORT FWD CORNER ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT
2	7	1. REVISED CONTAINER CRANE CAPACITY FROM 22.7 S TONS TO 30 L TONS 2. ADDED NAT'L DEF WT AND "C" BEAM AND L.C.M.-8 BEAM @ 34'-6" LEVEL NO. 7 HOLD
	5	3. ADDED WIND SPEED INDICATOR & SAT. NAV. ANTENNA ABOVE ITEMS TO SUIT OWNER'S COMMENTS
	7	4. DELETED FATHOMETER WELL FR 58 TO SUIT DEVELOPMENT AND WATERMAN STEAMSHIP CO. DEFECT FORMS NO'S 174 & 190.
	6-16	5. ADDED CELL DESIGNATIONS. 6. ADDED CANTILEVER LIFT ASSY STOWAGE

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR L-77/ABS DATED JUNE 28, 1978 F&G LTR ... DATED JUNE 28, 1979		NOH 8429 DTD JUL 27 '78	LTR. AF 48-117 DTD. JUL 16 1978	
1	5-23-79					
2	7/28/80	F & G 8-11-80				
3						
4						
5						
6						
7						
8						
9						
10						

REFERENCES

REV	NO	TITLE	DRAWING NO
	13	UPPER CABIN BRIDGE DKS & HSE TOP	01-03-15
	12	AFT	01-03-14
	11	MAIN DK FWD	01-03-13
	10	AFT	01-03-12
	9	2ND DK FWD	01-03-11
	8	AFT	01-03-10
	7	32'-0" 40'-0" FWD	01-03-09
	6	31'-6" AFT	01-03-08
	5	17'-10" THRU 26'-0" LEVELS FWD	01-03-07
	4	AFT	01-03-06
	3	TANK TOP FWD	01-03-05
	2	AFT	01-03-04
	1	GENERAL ARRG'T INNER BOTTOM FWD	C7-1000 01-03-03

RESERVATIONS

NO	DESCRIPTION

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY FWZ DATE 5-31-78
CHECKED BY ljl DATE 6-7-78
APVD 6-13-78
APVD PROJECT MANAGER 6-14-78
APVD VP/CHIEF ENGINEER

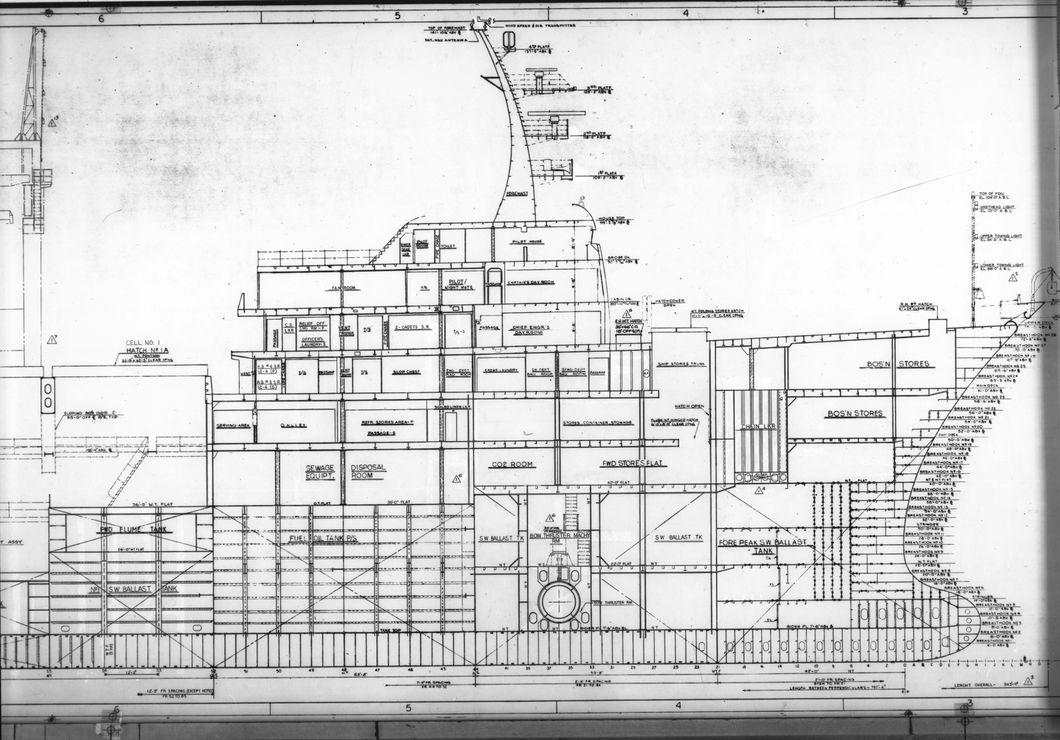
GENERAL ARRG'T
INBOARD PROFILE

SIZE H — A S I DWG NO **C7-1000** 01-03-02 — REV 2
SCALE 3/16 = 1'-0"

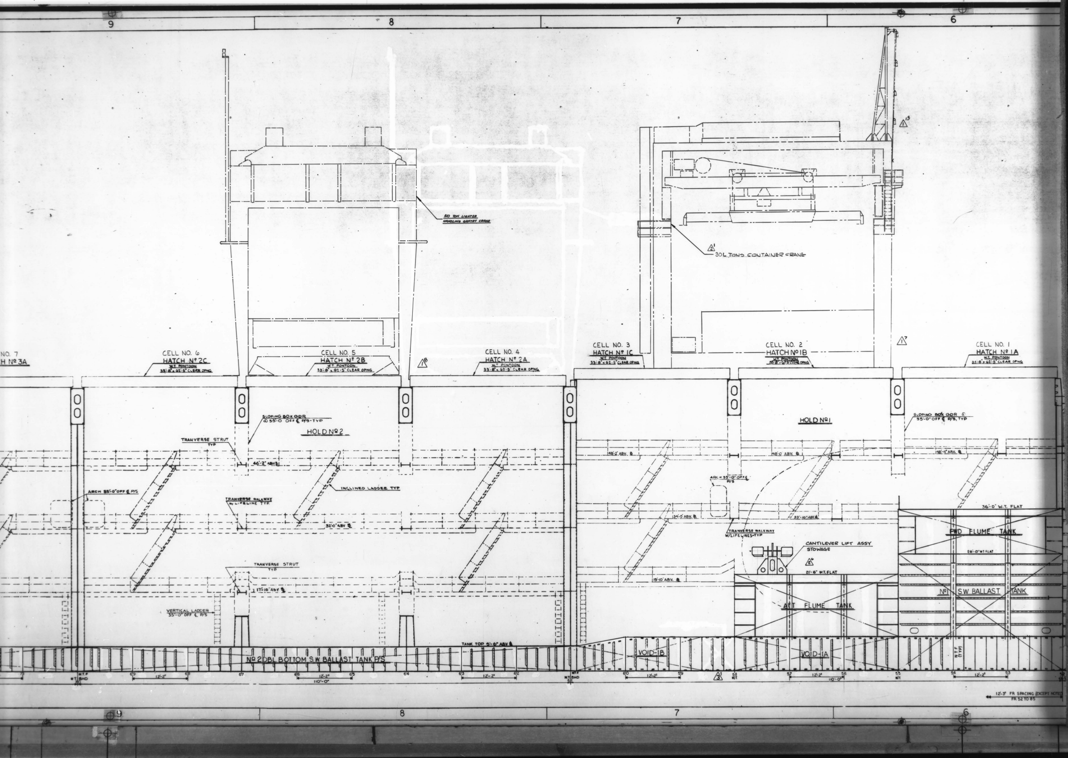
A S I DWG NO C7-1000 01-03-02 REV 2

DISTRIBUTION

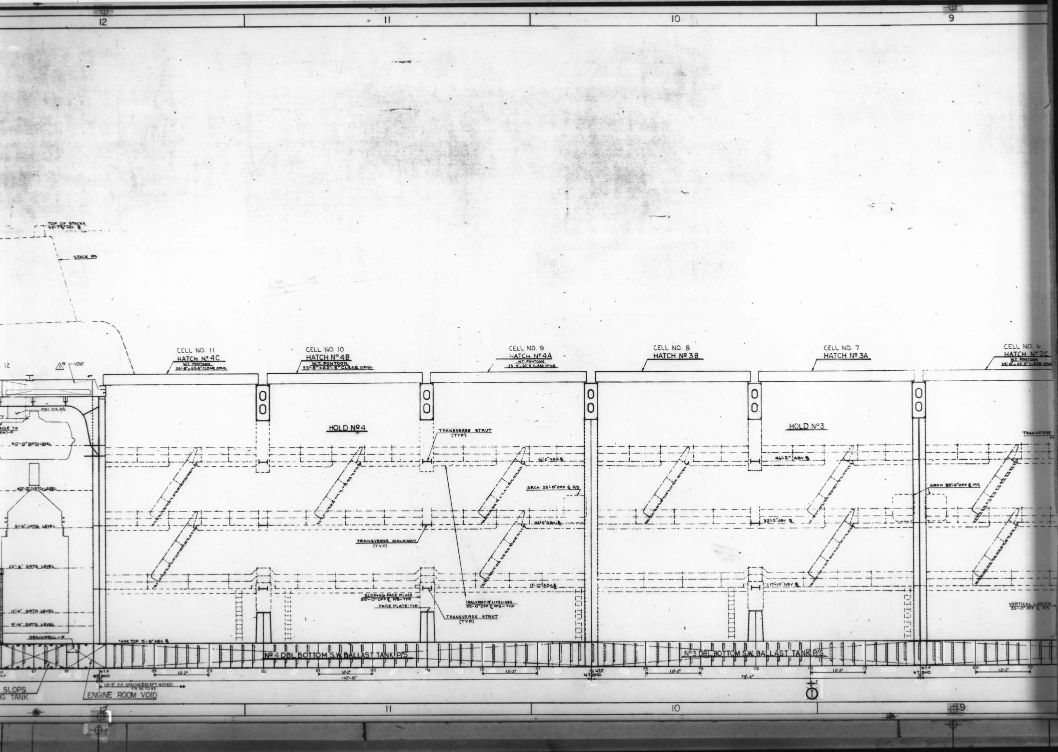
DEPARTMENT
PRODUCTION
PROD PLANNING
MOLD LOFT
ESTIMATING
PROJECT MANAGER
QUALITY CONTROL
COMPUTER APPL
ELECTRICAL
ENGR STANDARDS
FILES & RECORDS
HULL
HULL COMPOSITE
DESIGN
OUTFITTING
STL TAKE OFF
H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
RESEARCH & DEV
BAYOU BLACK
HARVEY
INDUSTRIAL DIV
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
OWNER (HOME)
OWNER (YARD)
MARAD (WASH)
MARAD (YARD)
FRIEDE & GOLDMAN
F & G (W)
WATERMAN
Sig Solares
Hopeman
TOTAL
DATE OF PRINT ISSUE

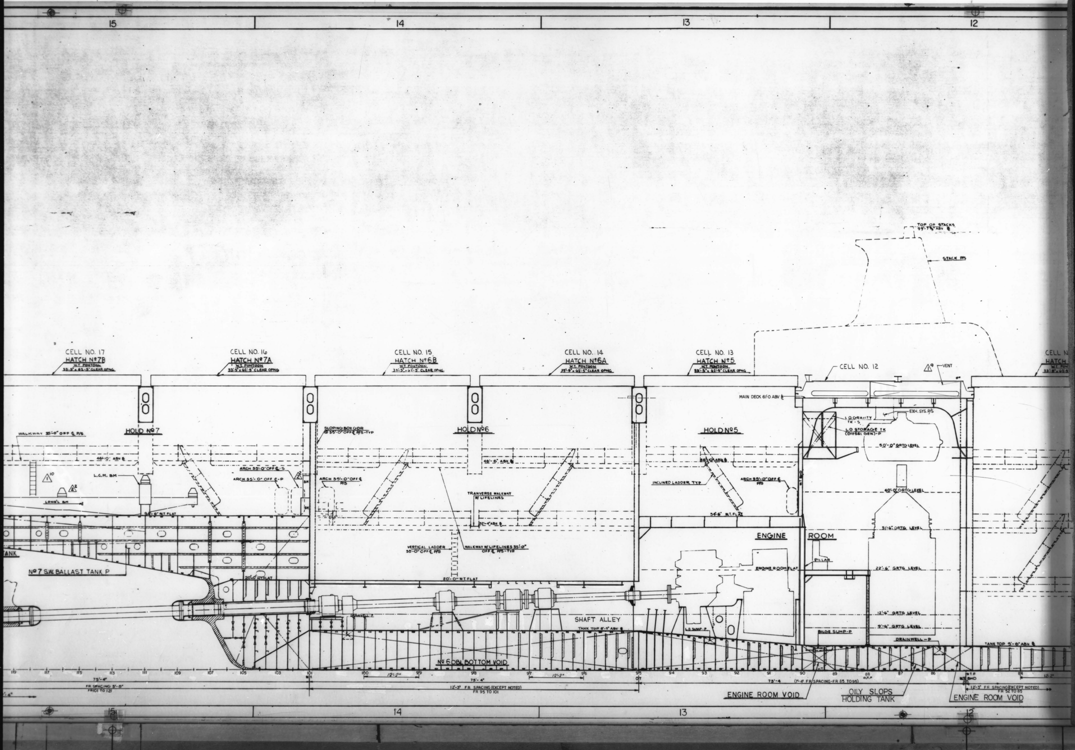


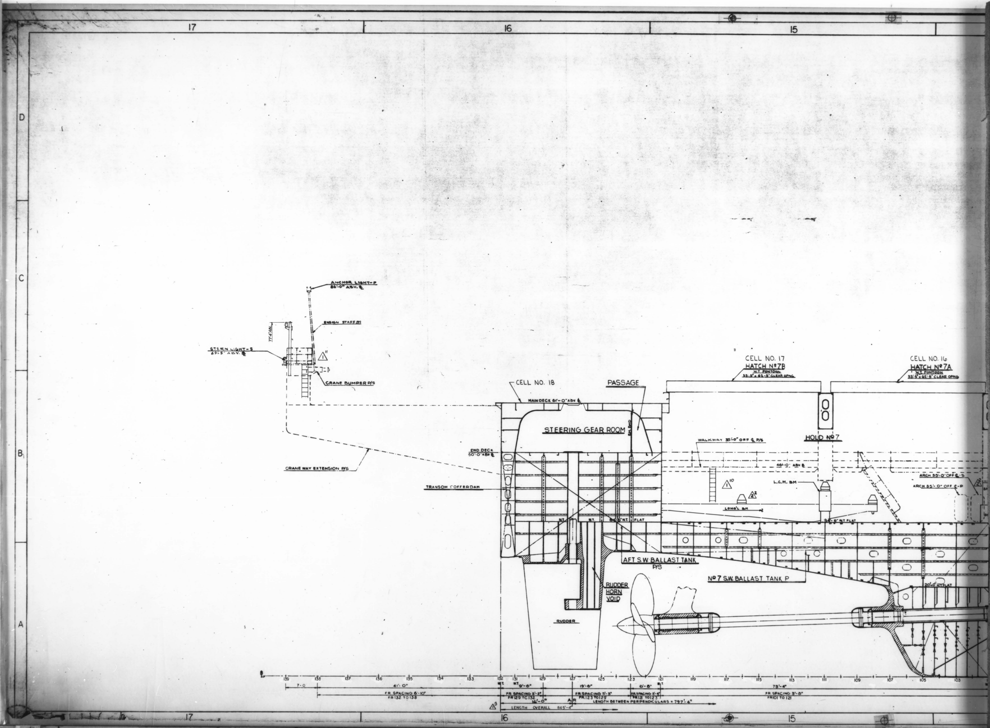
RED. 8X DATE 7-81
MA. NO. H-2 BLDR. NO.01-03-02
FRAME NO.2



RED. 8X DATE 7-81
MA. NO. H-2 BLDR. NO. 01-03-02
FRAME NO. 3


CELL NO. 11
HATCH Nº 4C
CELL NO. 10
HATCH Nº 4B
W.T. PONTOON
CELL NO. 9
HATCH Nº 4A
CELL NO. 8
HATCH Nº 3B
CELL NO. 7
HATCH Nº 3A
CELL NO. 6
HATCH Nº 2C
HOLD Nº 4
HOLD Nº 3
TRANSVERSE STRUT (TYP)
TRANSVERSE WALKWAY (TYP)
SLOPING FACE PLATE
FACE PLATE-TYP
WALKWAY W/ LIFELINES
VERTICAL LADDER
TOP OF STACKS
STACK P/S
EXH. SYS. P/S
VENT
50'-0" GRTG LEVEL
40'-0" GRTG LEVEL
22'-6" GRTG LEVEL
12'-6" GRTG LEVEL
9'-6" GRTG LEVEL
DRAINWELL-P
TANK TOP 5'-6" ABV ℄
Nº 4 DBL BOTTOM S.W. BALLAST TANK P/S
Nº 3 DBL BOTTOM S.W. BALLAST TANK P/S
SLOPS
ENGINE ROOM VOID
12
11
10
9

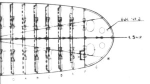

CELL NO. 17
HATCH Nº7B
CELL NO. 16
HATCH Nº7A
CELL NO. 15
HATCH Nº6B
CELL NO. 14
HATCH Nº6A
CELL NO. 13
HATCH Nº5
CELL NO. 12
TOP OF STACKS
STACK P/S
VENT
MAIN DECK 61'-0 ABV ℄
HOLD Nº7
HOLD Nº6
HOLD Nº5
WALKWAY 35'-0" OFF ℄ P/S
SLOPING BOX GDR
L.C.M. BM
LONG'L BM
INCLINED LADDER TYP
TRANVERSE WALKWAY W/ LIFELINES
VERTICAL LADDER
WALKWAY W/ LIFELINES 35'-0" OFF ℄ P/S-TYP
34'-6" W.T. FLAT
20'-0" W.T. FLAT
Nº7 S.W. BALLAST TANK P
ENGINE ROOM
ENGINE ROOM FLAT
PILLAR
LO GRAVITY TK - S
LO STORAGE TK (DIESEL GEN) - P
EXH. SYS. P/S
50'-0" GRTG LEVEL
40'-0" GRTG LEVEL
31'-6" GRTG LEVEL
22'-6" GRTG LEVEL
12'-6" GRTG LEVEL
9'-6" GRTG LEVEL
SHAFT ALLEY
BILGE SUMP - P
DRAINWELL - P
Nº6 DBL BOTTOM VOID
ENGINE ROOM VOID
OILY SLOPS HOLDING TANK
ENGINE ROOM VOID
15
14
13
12



RED. 8X DATE 7-81
MA. NO. H-2 BLDR. NO. 01-03-02
FRAME NO. 6

RED. 8X DATE 7-81
MA. NO. H-3 BLDR. NO. 01-03-03
FRAME NO. 1

TANK



TTOM

ABBREVIATIONS

@	AT
ABV.	ABOVE
ABS.	ABLE-BODIED SEAMAN
A.H.	ACCESS HOLE
A.P.	AFTER PERPENDICULAR
A.T.	AIRTIGHT
ASST.	ASSISTANT
B.H.	BRESTHOOK
BHD.	BULKHEAD
BKT.	BRACKET
B.L.	BASE LINE
BAG.	BAGGAGE
BEL.	BELOW
C.	CHAIR
℄	CENTER LINE
C.O.	CARGO OIL
COAM.	COAMING
C.V.K.	CENTER VERTICAL KEELSON
C.G.	CLEANING GEAR
C/D	CHEST - DESK
CONN.	CONNECTION
DBL.	DOUBLE
DEPT.	DEPARTMENT
D.F.	DRINKING FOUNTAIN
DIA.	DIAMETER
DK.	DECK
DN.	DOWN
DR.	DOOR
D.O.	DIESEL OIL
E.M.	EXPANDED METAL
ENG.	ENGINE
ENGR.	ENGINEER
EX. STR.	EXTRA STRONG
EMER.	EMERGENCY
F.D.	FIRE DOOR
F.O.	FUEL OIL
F.P.	FORWARD PERPENDICULAR
FR.	FRAME
F.L.	FIXED LIGHT
F.S.	FIRE STATION
F.T.	FUME TIGHT
F.W.	FRESH WATER
FLR.	FLOOR
F.O.T.B.P.	FLUSH OILTIGHT BOLTED PLATE
F.W.T.B.P.	FLUSH WATERTIGHT BOLTED PLATE
F.D.O.T.B.P.	FLUSH DECK OILTIGHT BOLTED PLATE
F.D.W.T.B.P.	FLUSH DECK WATERTIGHT BOLTED PLATE
FWD.	FORWARD
F.C.	FILE CABINET
G.T.	GASTIGHT
GDR.	GIRDER
H.	HEAD
H.O.T.M.H.	HINGED OILTIGHT MANHOLE
H.W.T.M.H.	HINGED WATERTIGHT MANHOLE
I.D.	INSIDE DIAMETER
INSL.	INSULATION
INBD.	INBOARD
JNR.	JOINER
L.	LAMP OR LIGHT
LONG'L	LONGITUDINAL
L.H.	LIGHTENING HOLE
LKR.	LOCKER
LDRY.	LAUNDRY
L.R.	LADDER RUNGS
LAV.	LAVATORY
M.H.	MANHOLE
M.H.R.	MANHOLE RECESSED
M.J.D.	METAL JOINER DOOR
MAINT.	MAINTENANCE
MED.	MEDICINE
N.T.	NON-TIGHT
O.D.	OUTSIDE DIAMETER
O.T.	OILTIGHT
O.T.F.	OILTIGHT FLOOR
OPNG.	OPENING
OUTBD.	OUTBOARD
O.S.	ORDINARY SEAMAN
P.	PORT
P/S	PORT & STARBOARD
P.F.	PORTABLE FLOOR
PL.	PLATE
Q.A.	QUICK ACTING
R.	RAISED
R.H.	RAISED HINGED
RAD.	RADIUS
REFR.	REFRIGERATOR
R.O.T.B.P.	RAISED OILTIGHT BOLTED PLATE
R.W.T.B.P.	RAISED WATERTIGHT BOLTED PLATE
R.M.	ROOM
S.	STARBOARD
S.M.	SHEET METAL
STAN.	STANCHION
STL.	STEEL
S.W.	SALT WATER
STL. DR.	STEEL DOOR
S.R.	STATEROOM
SHR.	SHOWER
STWD.	STEWARD
T/S	TOILET & SHOWER
TK.	TANK
TRANSV.	TRANSVERSE
T.	TABLE
UNLIC.	UNLICENSED
V.	VENT
V.L.	VERTICAL LADDER
VEST.	VESTIBULE
W.C.	WATER CLOSET
W.T.	WATERTIGHT
WEA.T.	WEATHERTIGHT
W.T.F.	WATERTIGHT FLOOR
WR.	WARDROBE

GENERAL NOTES

REFERENCES

REV	NO	TITLE	DRAWING NO
2		TANK TOP FWD	01-03-05
1		GENERAL ARRG'T INNER BOTTOM AFT	C7-1000 01-03-04

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-03 (WC) REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGTS.
1		1. RELEASED RESERVATION Nº 1 2. REVISED FLOORS FRS 33-39 TO SUIT STRUCTURAL DWG CHANGES ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT
2	8	1. DELETED FATHOMETER WELL 3'-8" AFT FR 58 TO SUIT DEVELOPMENT & WATERMAN STEAMSHIP CO. DEFECT FORMS NO'S 174 & 190.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR L-772/397 DTD JUNE 23, 1978		H-2429 DTD JUL 27, 1978	AP-46-117 DTD JUL 7, 1978	
1	5-23-79	F&G LTR L-772/2161 DTD JUNE 25, 1979				
2	7/21/80	F&G 8-11-80				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	~~VERTICAL LADDERS AND MHS (OVER) AFT FR. 58 PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY: ERR DATE: 5-31-78
CHECKED BY: ejl DATE: 6-7-78
APVD: 6-12-78
APVD: J. J. Murphy, PROJECT MANAGER 6-16-78
APVD: VP/CHIEF ENGINEER

GENERAL ARRG'T INNER BOTTOM FWD

SIZE H — A S I DWG NO **C7-1000** 01-03-03 — REV 2
SCALE 1/4" = 1'-0"

A S I DWG NO C7-1000 01-03-03 REV 2

DISTRIBUTION

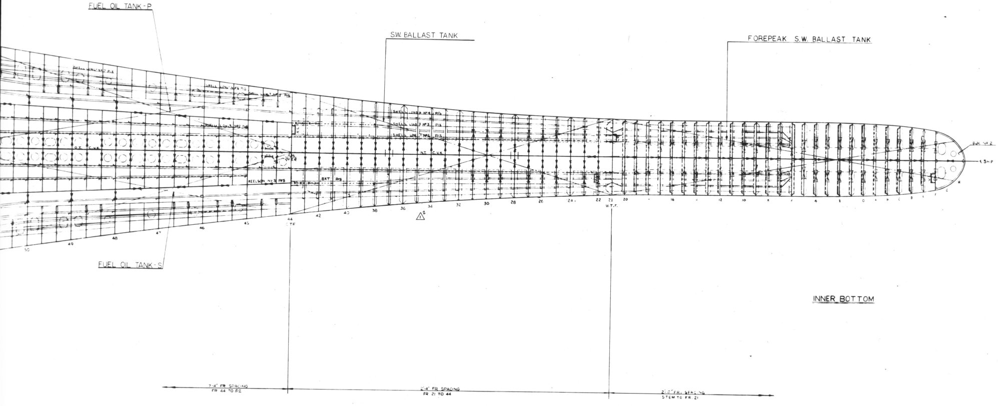
DEPARTMENT	0	1	2
PRODUCTION	12	17	15
PROD PLANNING		1	1
MOLD LOFT			
ESTIMATING			
PROJECT MANAGER	1	1	1
QUALITY CONTROL	1	1	1
COMPUTER APPL			
ELECTRICAL	1	1	1
ENGR STANDARDS			
FILES & RECORDS	1	1	1
HULL			
HULL COMPOSITE	1	1	1
DESIGN	1	1	1
OUTFITTING	1	1	1
STL TAKE OFF			
H V A C			
MATERIAL REQN	1	1	1
MECHANICAL	1	1	
MECH COMPOSITE			
RESEARCH & DEV			
BAYOU BLACK			
HARVEY			
INDUSTRIAL DIV			
SERVICE FOUNDRY			
JOINER CONTRACTOR	1	1	
ADMEASURER			
A B S (NY)	4		
A B S (NO)			
A B S (YARD)		1	1
U S C G (NO)	2		
U S C G (YARD)		1	1
U S P H S	2		
OWNER (HOME)	1	1	
OWNER (YARD)			
MARAD (WASH)			1
MARAD (YARD)	1	1	1
FRIEDE & GOLDMAN	3	3	3
F & G (Y)		1	1
WATERMAN			4
Sig Solares			1
TOTAL	36	[illegible]	37
DATE OF PRINT ISSUE	[illegible]	[illegible]	[illegible]

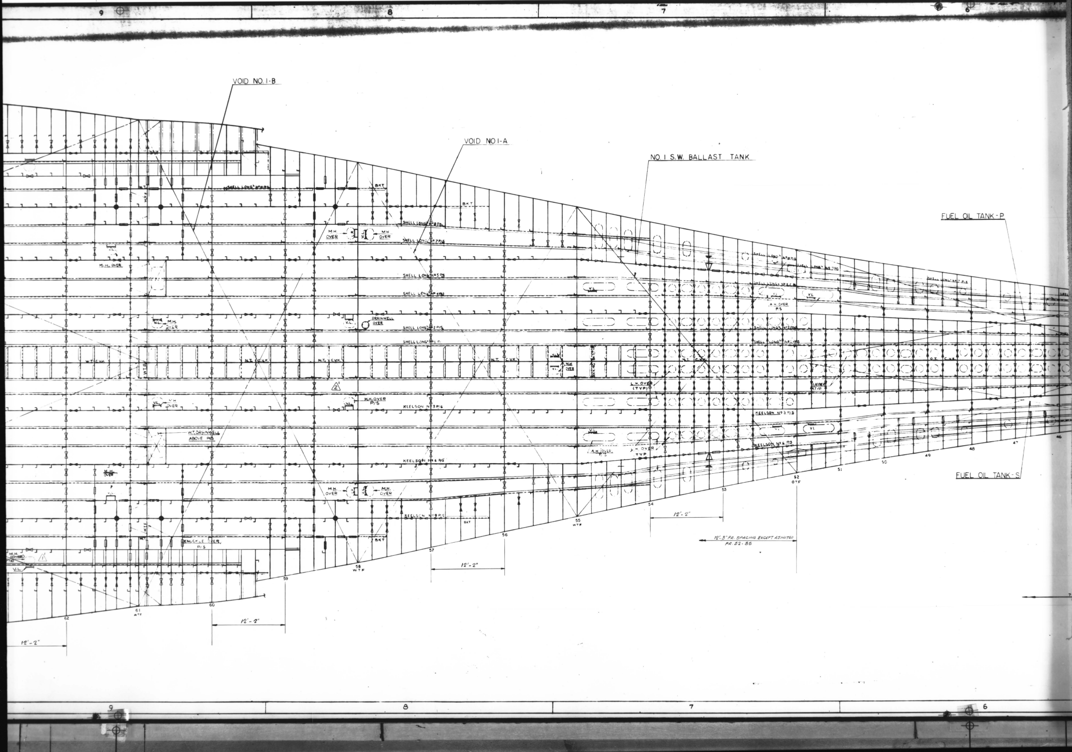
C7-1000 01-03-03

DISTRIBUTION

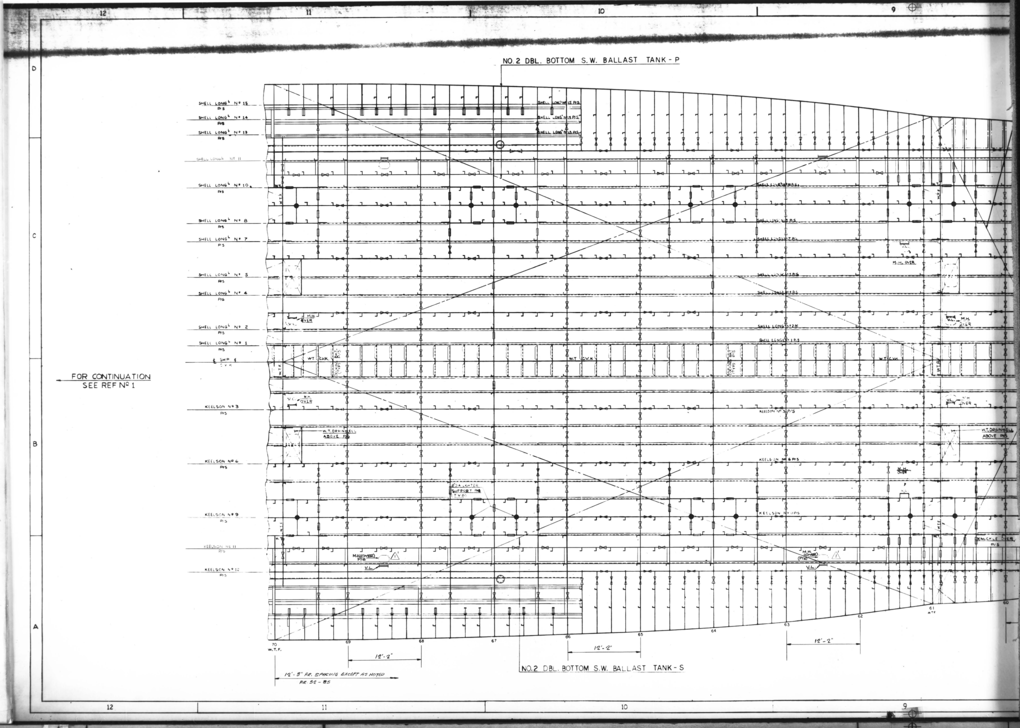
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
A B S (NY)	
A B S (NO)	
A B S (YARD)	
U S C G (NO)	
U S C G (YARD)	
U S P H S	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

01-03-03 C7-1000


FUEL OIL TANK-P
S.W. BALLAST TANK
FOREPEAK S.W. BALLAST TANK
FUEL OIL TANK-S
INNER BOTTOM
7'-4" FR. SPACING FR. 44 TO 52
2'-4" FR. SPACING FR. 21 TO 44
2'-0" FR. SPACING STEM TO FR. 21
W.T.F.
KEELSON No 3 P/S

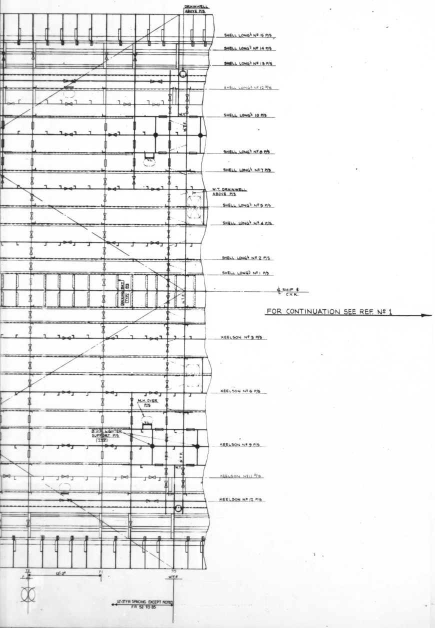


RED. 8X DATE 7-81
MA. NO. H-3 BLDR. NO. 01-03-03
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-3 BLDR. NO. 01-03-03
FRAME NO. 4

RED. 8X DATE 7-81
MA. NO. H-4 BLDR. NO. 01-03-04
FRAME NO. 1



FOR CONTINUATION SEE REF. Nº 1 →

GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF. NO. 1

REV	NO	TITLE	DRAWING NO
	2	TANK TOP AFT	01-03-06
	1	GENERAL ARRG'T INNER BOTTOM FWD	C7-1000 01-03-03

REFERENCES

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-04 REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS. AND CONTRACT ARRGTS.
1		1. RELEASED RESERVATION Nº 1 2. ADDED ACCESS OPENINGS 1'-2" FWD FR 86 (P/S) IN SHELL LONG Nº 5; & ACCESS OPENINGS 1'-2" FWD FR 87 IN KEELSON Nº 9 ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT
2	7	1. ADDED RESIDUE TANK BETWEEN FRS. 86 & 87 PORT, ADDED M.H. & V.L. & REVISED ACCESS OPENING TO SUIT.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR. L-772/883 DTD JUNE 22, 1978		H-2429 DTD JUL 27, 1978	AE 48-117 DTD JUL 7, 1978	
1	5-23-79	F&G LTR L-772/2161 DTD JUNE 25, 1979				
2						
3						
4						
5						
6						
7						
8						
9						
10						

ASI DWG NO C7-1000 01-03-04 REV 1

RESERVATIONS

NO	DESCRIPTION
1	~~VERTICAL LADDERS & M.H.s (OVER) FWD FR 86 PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

GENERAL ARRG'T
INNER BOTTOM AFT

DRAWN BY	F.R.	DATE 5-31-78
CHECKED BY		DATE 6-7-78
APVD		6-13-78
APVD PROJECT MANAGER		6-14-78
APVD VP/CHIEF ENGINEER		

SIZE H — A S I DWG NO **C7-1000** 01-03-04 — REV 1
SCALE 1/4" = 1'-0"

DISTRIBUTION

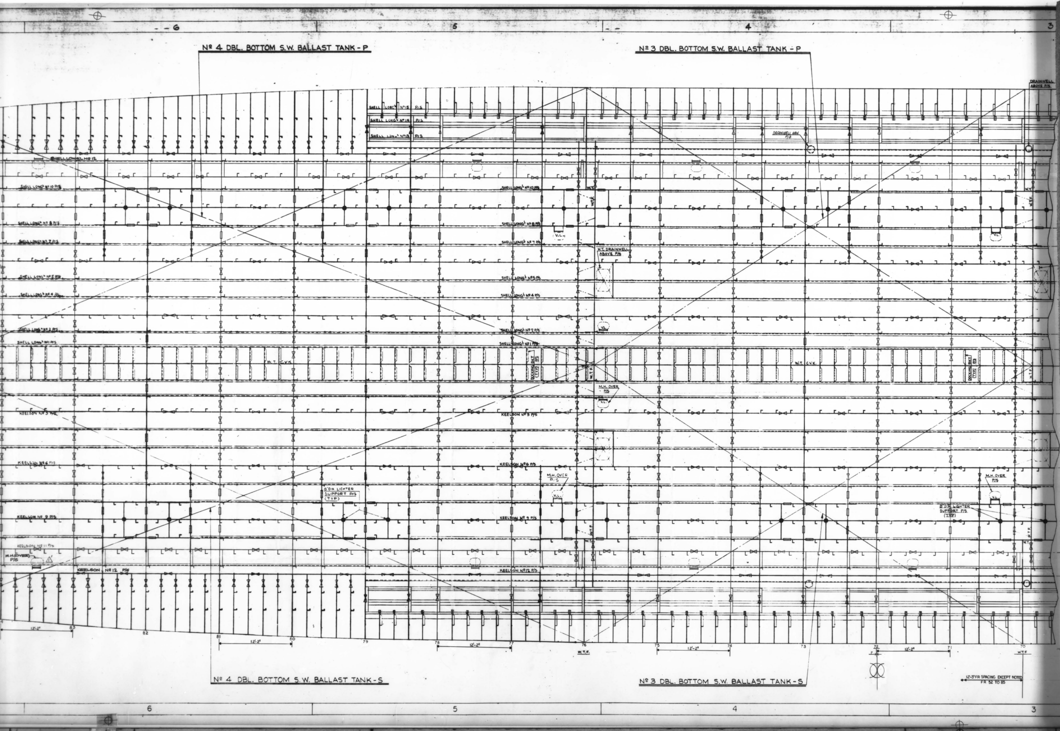
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
FRIEDE & GOLDMAN	
F & G (Y)	
TOTAL	
DATE OF PRINT ISSUE	

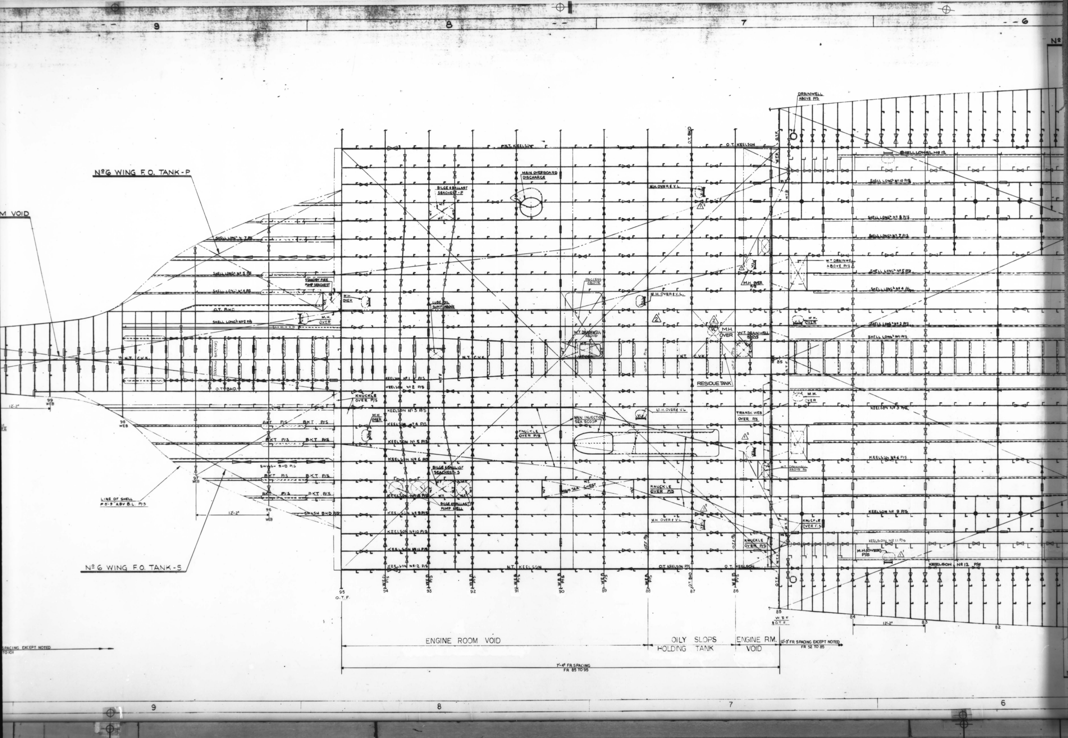
C7-1000 01-03-04

DISTRIBUTION

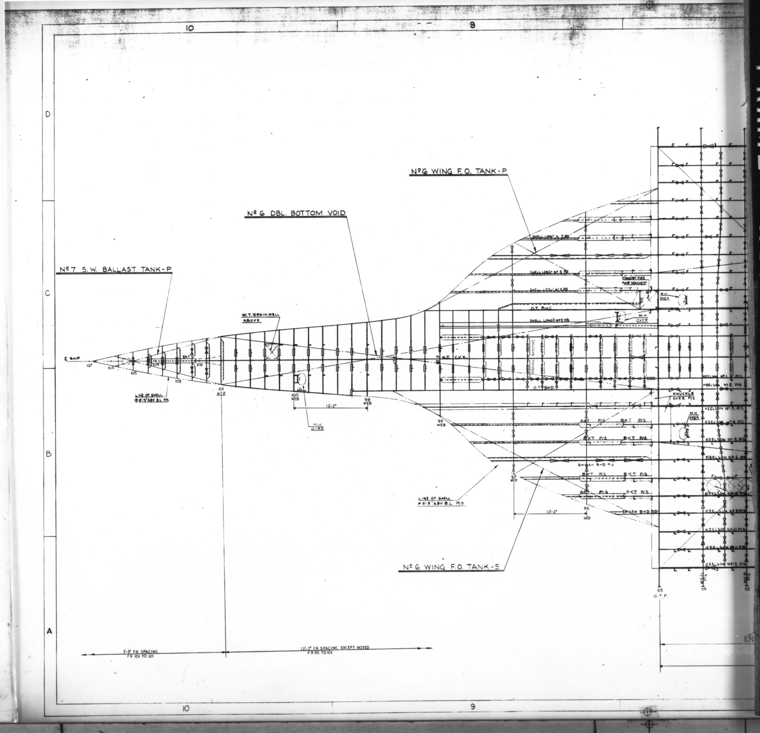
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

01-03-04 C7-1000


Nº 4 DBL. BOTTOM S.W. BALLAST TANK - P
Nº 3 DBL. BOTTOM S.W. BALLAST TANK - P
DRAINWELL ABOVE P/S
SHELL LONGL Nº 15 P/S
SHELL LONGL Nº 14 P/S
SHELL LONGL Nº 13 P/S
SHELL LONGL Nº 12
SHELL LONGL Nº 10 P/S
SHELL LONGL Nº 8 P/S
SHELL LONGL Nº 7 P/S
SHELL LONGL Nº 5 P/S
SHELL LONGL Nº 4 P/S
SHELL LONGL Nº 2 P/S
SHELL LONGL Nº 1 P/S
W.T. DRAINWELL ABOVE P/S
DRAINWELL GRH P/S
W.T. C.V.K.
DOCKING BKT (TYP) P/S
M.H. OVER P/S
KEELSON Nº 3 P/S
KEELSON Nº 6 P/S
KEELSON Nº 9 P/S
KEELSON Nº 11 P/S
KEELSON Nº 12 P/S
8" DIA LIGHTER SUPPORT P/S (TYP)
W.T.F.
V.L.
12'-2"
Nº 4 DBL. BOTTOM S.W. BALLAST TANK - S
Nº 3 DBL. BOTTOM S.W. BALLAST TANK - S
12'-3" FR SPACING EXCEPT NOTED FR 52 TO 85



RED. 8X DATE 7-81
MA. NO. H-4 BLDR. NO. 01-03-04
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-4 BLDR. NO. 01-03-04
FRAME NO. 4

RED. 8X DATE 7-81
MA. NO. H-5 BLDR. NO. 01-03-05
FRAME NO. 1

C SHIP

GENERAL NOTES

1. FOR ABBREVATIONS SEE REF Nº 1.

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-05 (WC) REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGT'S.
1		1. RELEASED RESERVATIONS Nº 1 & 2 2. RELOCATED DRAINWELL P/S FR. 70 TO FR 67 ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT
2	9	1. DELETED INDICATION OF FATHOMETER WELL 3'-8" AFT FR 58 TO SUIT DEVELOPMENT AND WATERMAN STEAMSHIP CO. DEFECT FORMS NO.'S 174 & 190.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G NR L-7221/946 JUNE 23, 1978		NR H-2479 JULY 27-78	NR-45-117 JULY 7-1978	
1	5-22-79	F&G NR L-772/2161 DTD JUNE 28, 1979				
2	7/21/80	NOT REQUIRED				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
2	~~M.H LOCATIONS ON TANK TOP AFT FR 58 PENDING DEVELOPMENT~~
1	~~VERTICAL LADDERS IN WING TANKS PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

REFERENCES

NO	TITLE	DRAWING NO
3	17'-10" THRU 26'-0" LVLS FWD	01-03-07
2	TANK TOP AFT	01-03-06
1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000 01-03-03

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

GENERAL ARRG'T
TANK TOP FWD

DRAWN BY	FWZ	DATE 5-31-78
CHECKED BY	GJL	DATE 6-7-78
APVD		6/14/78
APVD PROJECT MANAGER	J.J. Murphy	6-14-78
APVD VP/CHIEF ENGINEER		

SIZE H — A S I DWG NO C7-1000 01-03-05 — REV 2
SCALE 1/4" = 1'-0"

A S I DWG NO C7-1000 01-03-05 REV 2

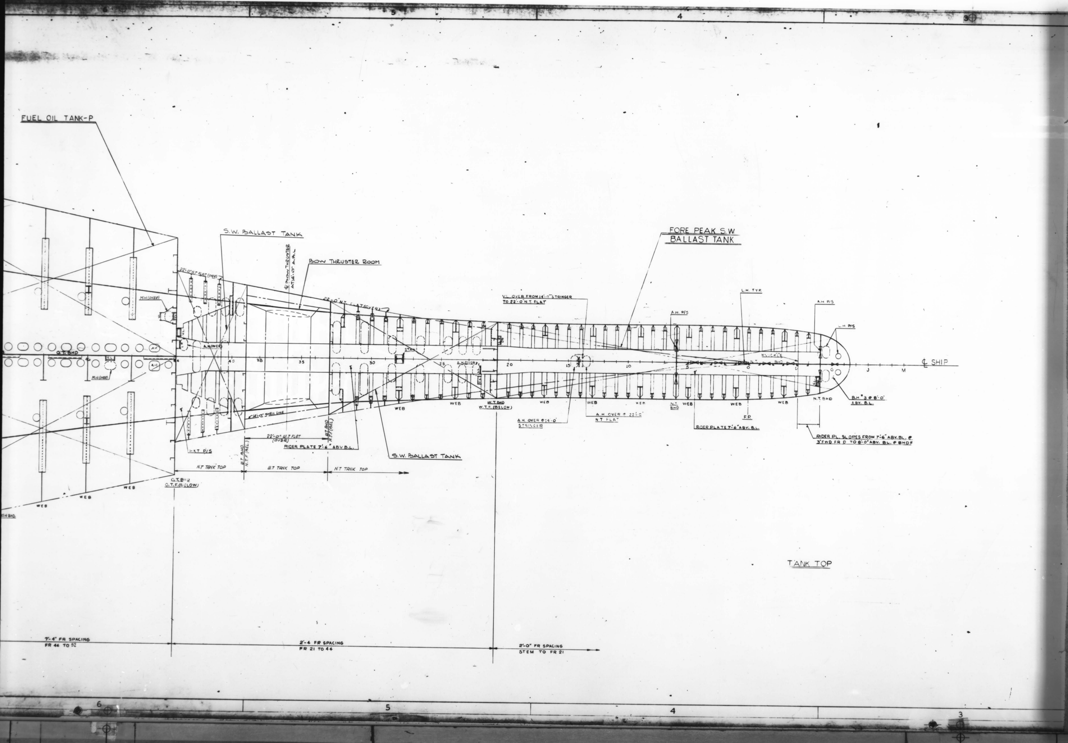
DISTRIBUTION

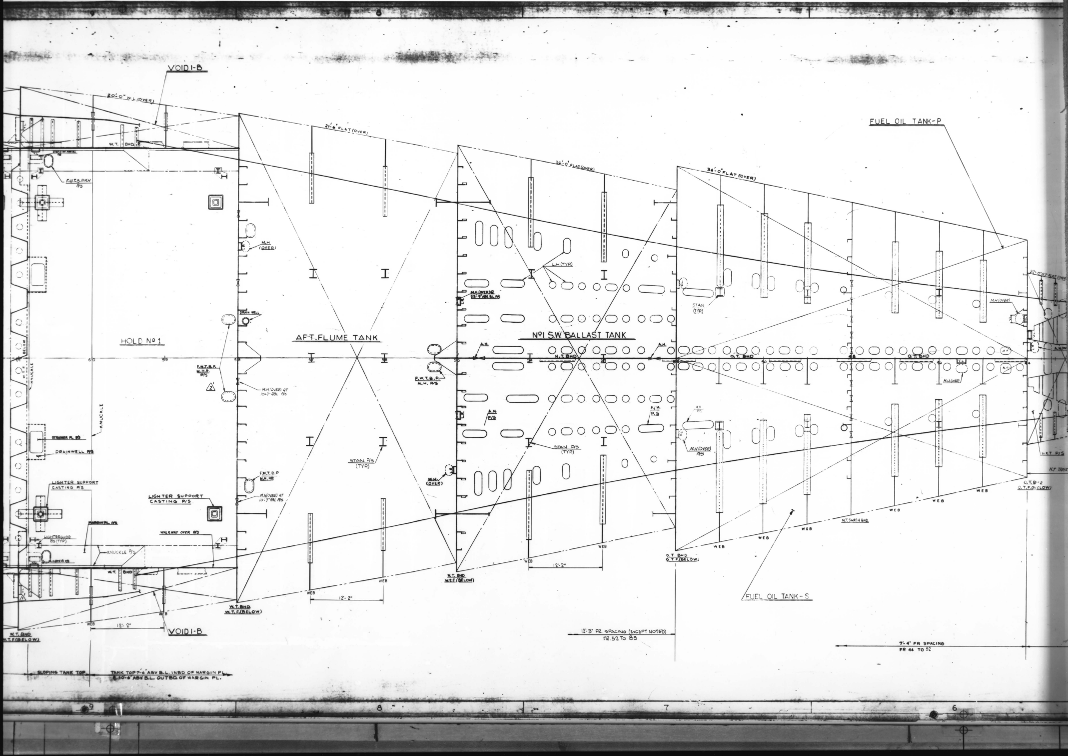
DEPARTMENT: PRODUCTION; PROD PLANNING; MOLD LOFT; ESTIMATING; PROJECT MANAGER; QUALITY CONTROL; COMPUTER APPL; ELECTRICAL; ENGR STANDARDS; FILES & RECORDS; HULL; HULL COMPOSITE; DESIGN; OUTFITTING; STL TAKE OFF; H V A C; MATERIAL REQN; MECHANICAL; MECH COMPOSITE; RESEARCH & DEV; BAYOU BLACK; HARVEY; INDUSTRIAL DIV; SERVICE FOUNDRY; JOINER CONTRACTOR; ADMEASURER; ABS (NY); ABS (NO); ABS (YARD); USCG (NO); USCG (YARD); USPHS; OWNER (HOME); OWNER (YARD); MARAD (WASH); MARAD (YARD); FRIEDE & GOLDMAN; F & G (Y); WATERMAN; Sig Solares

TOTAL

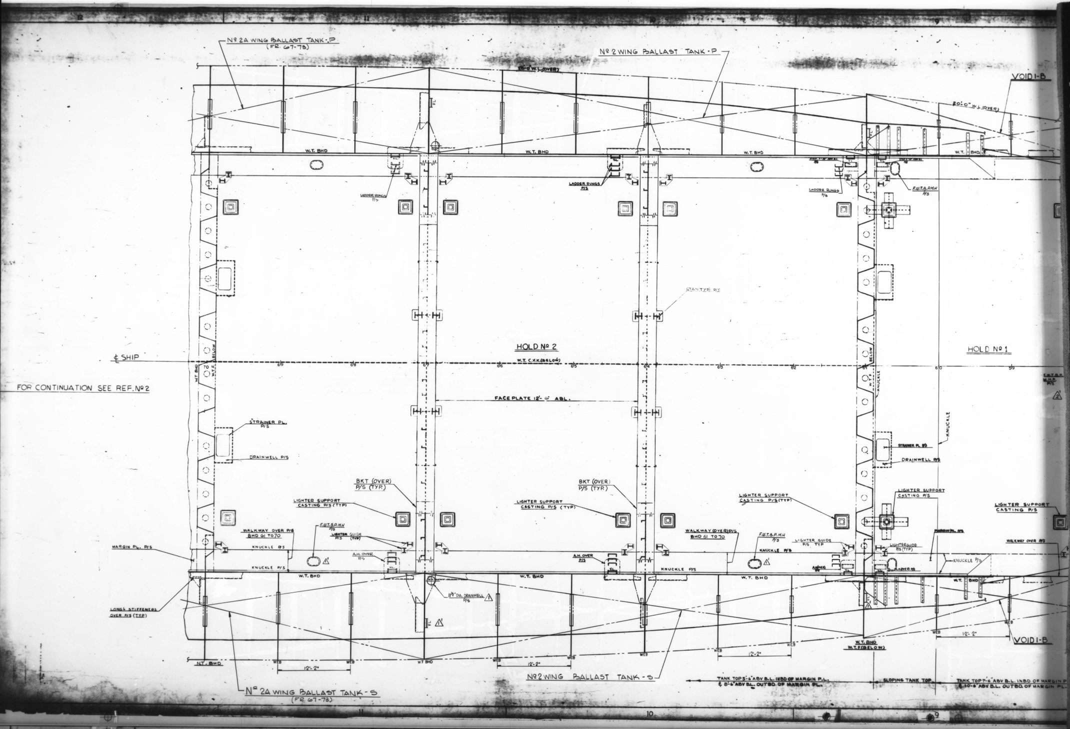
DATE OF PRINT ISSUE

C7-1000 01-03-05

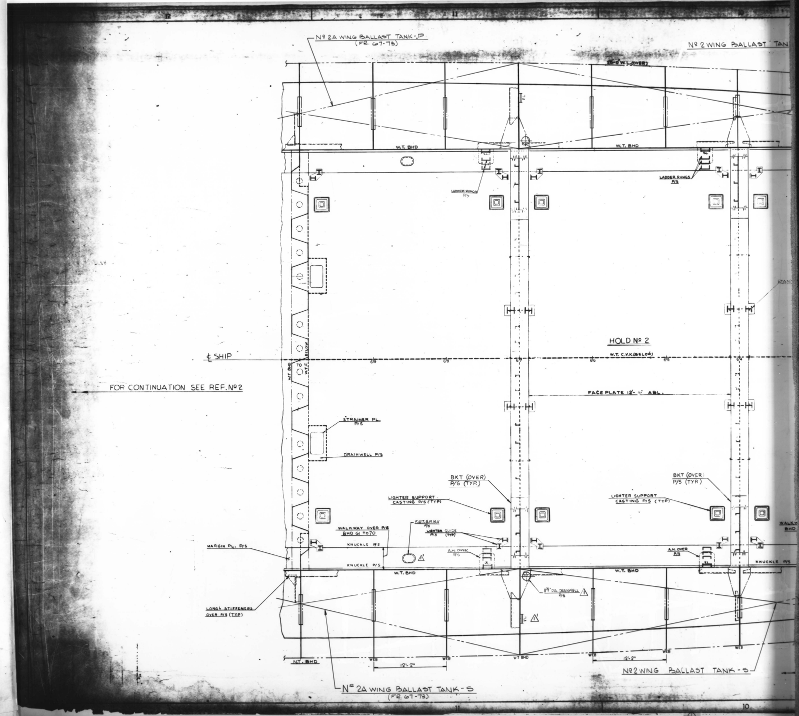

FUEL OIL TANK-P
S.W. BALLAST TANK
BOW THRUSTER ROOM
FORE PEAK S.W
BALLAST TANK
S.W. BALLAST TANK
C SHIP
TANK TOP
7'-4" FR SPACING
FR 44 TO 52
2'-4 FR SPACING
FR 21 TO 44
2'-0" FR SPACING
STEM TO FR 21



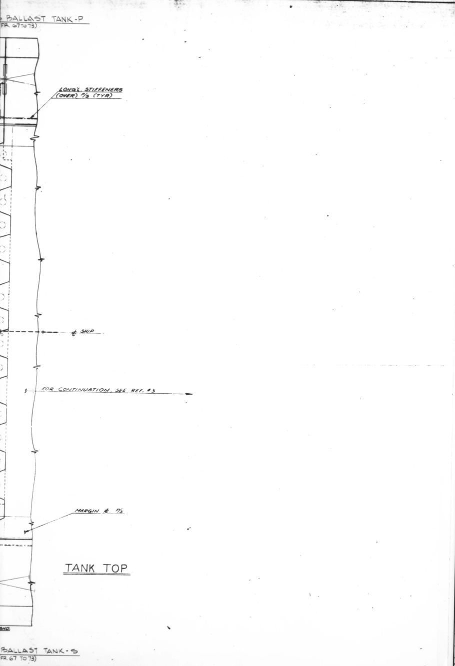
RED. 8X DATE 7-81
MA. NO. H-5 BLDR. NO. 01-03-05
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-5 BLDR. NO. 01-03-05
FRAME NO. 4



Nº 2A WING BALLAST TANK-P
(FR. 67-73)
Nº 2 WING BALLAST TAN
W.T. BHD
LADDER RUNGS P/S
HOLD Nº 2
℄ SHIP
W.T. C.V.K.(BELOW)
FOR CONTINUATION SEE REF. Nº 2
FACE PLATE 12'-6" ABL.
STRAINER PL. P/S
DRAINWELL P/S
BKT (OVER) P/S (TYP.)
LIGHTER SUPPORT CASTING P/S (TYP)
WALKWAY OVER P/S BHD 61 TO 70
KNUCKLE P/S
MARGIN PL. P/S
LIGHTER GUIDE P/S (TYP)
A.H. OVER P/S
11½" DIA. DRAINWELL P/S
LONGL STIFFENERS OVER P/S (TYP)
N.T. BHD
WEB
12'-2"
W.T. BHD
Nº 2 WING BALLAST TANK-S
Nº 2A WING BALLAST TANK-S
(FR. 67-73)



GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF № 1.

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-06 REV 5 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGT'S.
		1. RELEASED RESERVATIONS № 1 & 2 2. REVISED LOCATION DRAINWELLS FR 76 NO 3 WING TANK TO FR 73 № 2A WING TANK (P/S) 3. ADDED DRAINWELLS APPROX 18'-6" OFF ℄ @ APPROX 2'-6" AFT FR 85. ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT
2	7	1. ADDED INDICATION OF RESIDUE TANK BETWEEN FRS. 86 & 87 PORT & ADDED M.H. TO SUIT. DEVELOPMENT

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G ML-1992/340 JUNE 23-1978		H-3484 DTD JUL 27 1978		
1	5-23-79	F&G ML-1770/PMI DTD JUNE 1979				
2	9/29/80	NOT REQUIRED				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
2	~~VERTICAL LADDERS IN WING TANKS PENDING DEVELOPMENT~~
1	~~M.H's LOCATION ON TANK TOP FWD FR 85 PENDING DEVELOPMENT~~

REFERENCES

REV	NO	TITLE		DRAWING NO
	5	ARRGT OF MACHY IN ENGINE RM. PLAN		40-00-01
	4	17'-10" THRU 31'-6" LVL AFT		01-03-08
	3	TANK TOP FWD		01-03-05
	2	AFT		01 03 04
	1	GENERAL ARRG'T INNER BOTTOM FWD	C7-1000	01-03-03

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

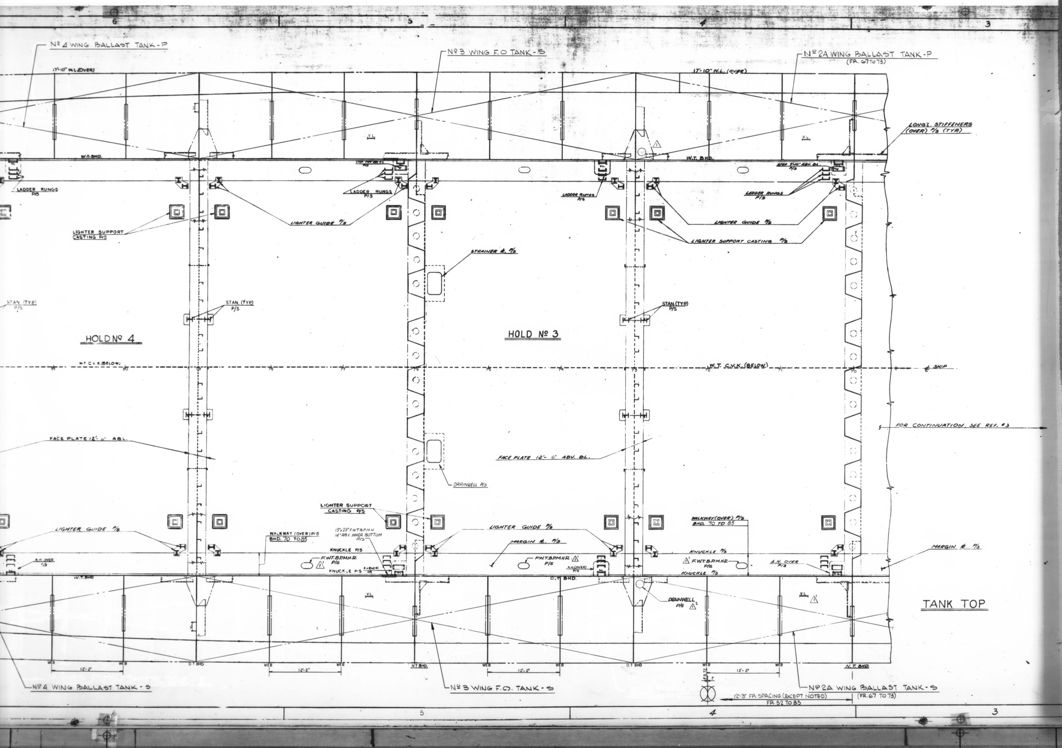
AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY: 5-31-78
CHECKED BY: 6-7-78
APVD: 6-14-78
APVD: J. J. [illegible] PROJECT MANAGER 6-14-78
APVD: VP/CHIEF ENGINEER

GENERAL ARRG'T
TANK TOP AFT

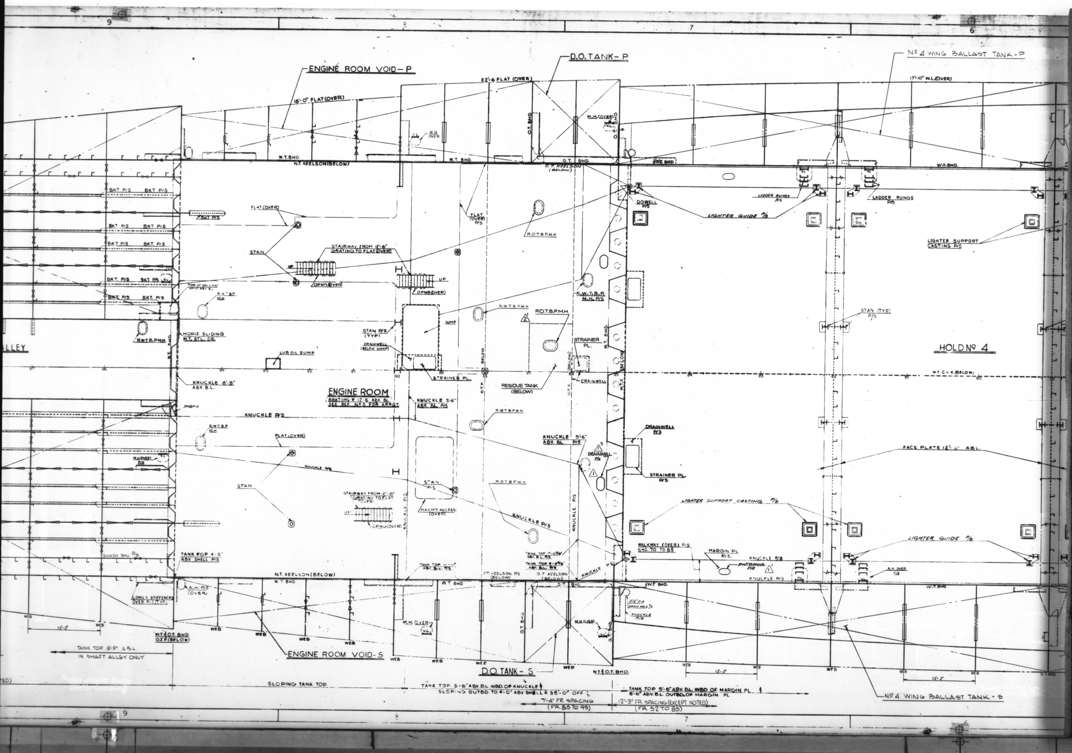
SIZE H — A S I DWG NO **C7-1000** 01-03-06 — REV 2
SCALE 3/8" = 1'-0"

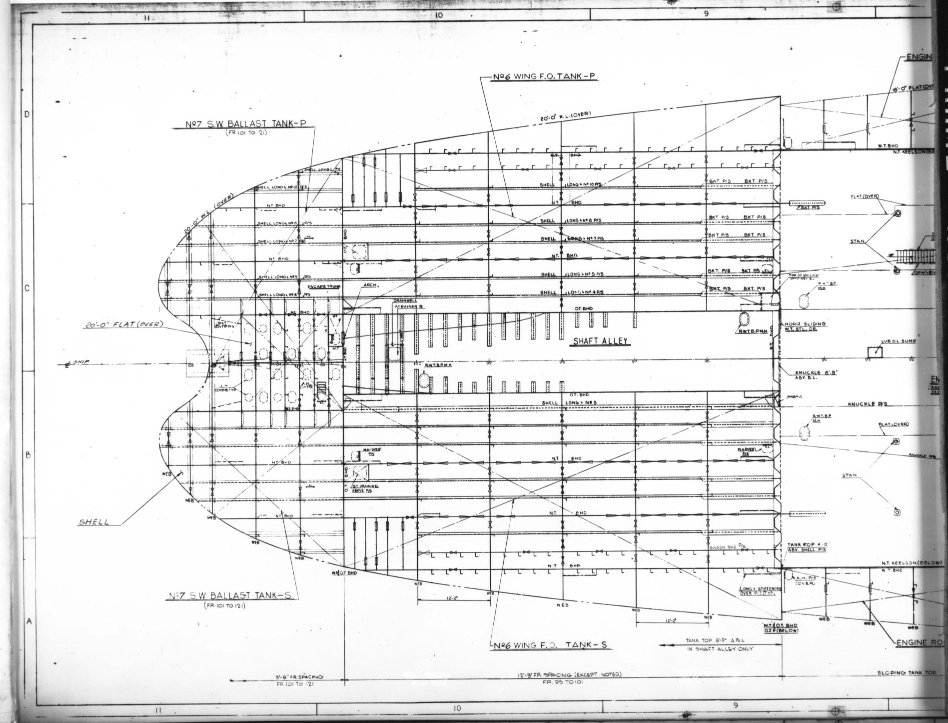
RED. 8X DATE 7-81
MA. NO. H-6 BLDR. NO. 01-03-06
FRAME NO. 1



RED. 8X DATE 7-81
MA. NO. H-6 BLDR. NO. 01-03-06
FRAME NO. 2

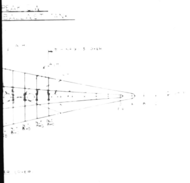
RED. 8X DATE 7-81
MA. NO. H-6 BLDR. NO. 01-03-06
FRAME NO. 3





Nº6 WING F.O. TANK-P
Nº7 S.W. BALLAST TANK-P
(FR. 101 TO 121)
20'-0" W.L. (OVER)
20'-0" FLAT (OVER)
℄ SHIP
SHAFT ALLEY
ESCAPE TRUNK
ARCH.
DRAINWELL
STRAINER
HORIZ. SLIDING W.T. STL. DR.
KNUCKLE 8'-9" ABV. B.L.
KNUCKLE P/S
LUB OIL SUMP
FLAT (OVER)
STAN
W.T. BHD
N.T. KEELSON (BELOW)
TANK TOP 4'-0" ABV SHELL P/S
SWASH BHD P/S
A.H. P/S (OVER)
LONG & STIFFENERS OVER P/S TYP.
W.T. & O.T. BHD O.T.F. (BELOW)
SHELL
Nº7 S.W. BALLAST TANK-S
(FR. 101 TO 121)
Nº6 WING F.O. TANK-S
TANK TOP 8'-9" A.B.L. IN SHAFT ALLEY ONLY
3'-8" FR. SPACING FR. 101 TO 121
12'-3" FR. SPACING (EXCEPT NOTED) FR. 95 TO 101
SLOPING TANK TOP
ENGINE RO
12'-2"

RED. 8X DATE 7-81
MA. NO. H-7 BLDR. NO. 01-03-07
FRAME NO. 1



GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF Nº 1.

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-07(W.C) REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS. AND CONTRACT ARRGTS.
1		1. RELEASED RESERVATION Nº 1 2. REVISED BOW THRUSTER MACHINERY ROOM TO INCLUDE MOTOR, MOTOR CONTROLLER, HYD POWER UNIT, DECK CUT WITH ACCESS LDRS & BP.W.T. MAN HOLES ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT
2		1. ADDED CANTILEVER LIFT FRAME TROLLEY ASSEMBLY ON 21'-6" FLAT BETWEEN FR 57 & 58 P/S.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAR
0		F&G NO. 772/389 JUNE 26-1978		NO. H-2429 JULY-27-78	26-17 JULY-7-1978	
1	5-23-79	F&G 6-25-79				
2	7/21/80	F&G 8-15-80				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	VERTICAL LADDERS IN WING TANKS PENDING DEVELOPMENT

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

REFERENCES

REV	NO	TITLE		DRAWING NO
	4	32'-0" THRU 40'-0" LEVELS FWD		01-03-09
	3	17'-10" THRU 31'-6" LEVELS AFT		01-03-05
	2	TANK TOP FWD		01-03-05
	1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000	01-03-03

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

GENERAL ARRG'T
17'-10" THRU 26'-0" LEVELS FWD

DRAWN BY MR 5-31-78
CHECKED BY 6-7-78
APVD 6-12-78
APVD 6-14-78 PROJECT MANAGER
APVD VP/CHIEF ENGINEER

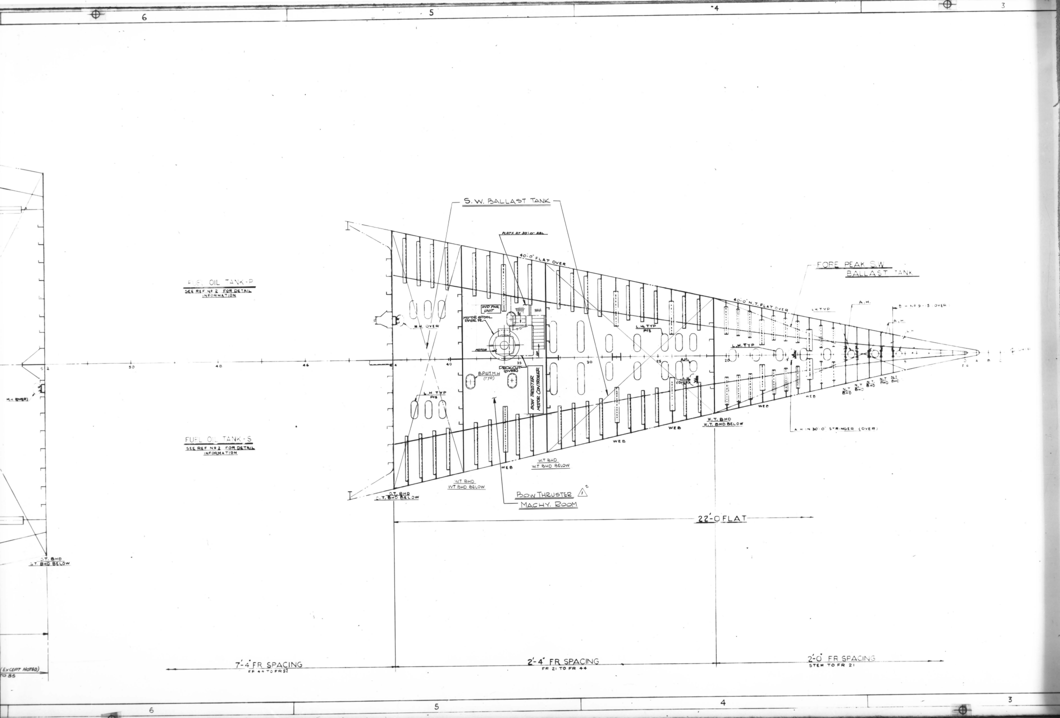
SIZE H — A S I DWG NO C7-1000 01-03-07 — REV 2
SCALE 1/4" = 1'-0"

A S I DWG NO C7-1000 01-03-07 REV 2

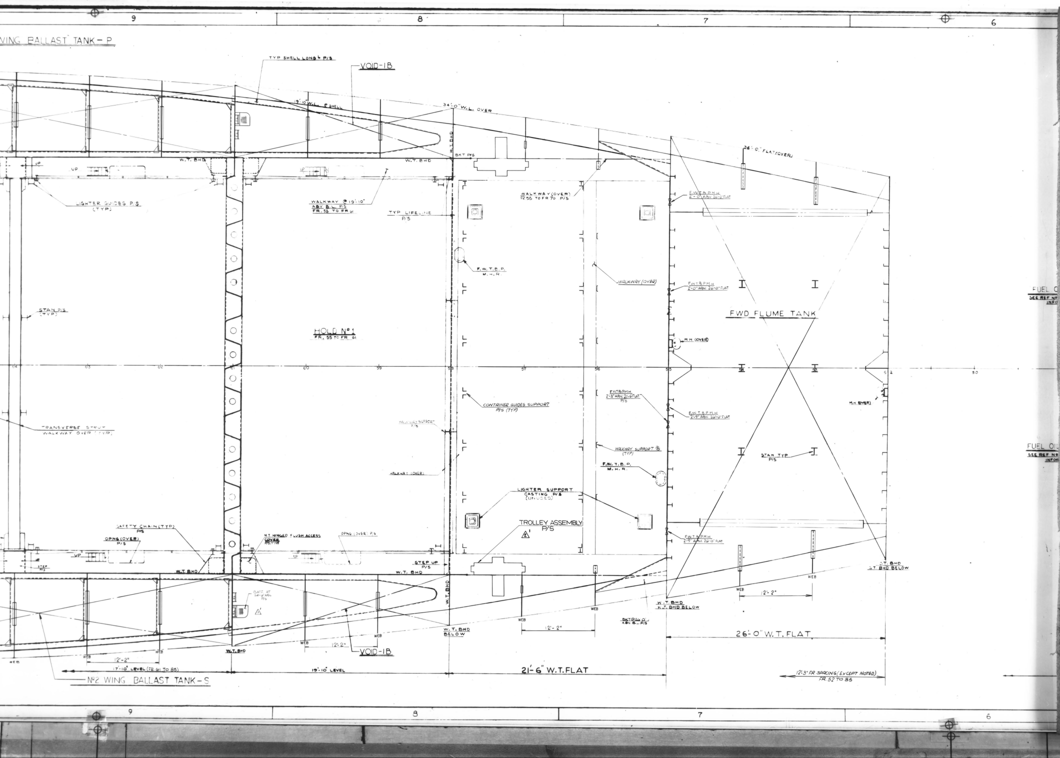
DISTRIBUTION

DEPARTMENT	PRELIM	REVISION
PRODUCTION		
PROD PLANNING		
MOLD LOFT		
ESTIMATING		
PROJECT MANAGER		
QUALITY CONTROL		
COMPUTER APPL		
ELECTRICAL		
ENGR STANDARDS		
FILES & RECORDS		
HULL		
HULL COMPOSITE		
DESIGN		
OUTFITTING		
STL TAKE OFF		
H V A C		
MATERIAL REQN		
MECHANICAL		
MECH COMPOSITE		
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR		
ADMEASURER		
ABS (NY)		
ABS (NO)		
ABS (YARD)		
USCG (NO)		
USCG (YARD)		
USPHS		
OWNER (HOME)		
OWNER (YARD)		
MARAD (WASH)		
MARAD (YARD)		
FRIEDE & GOLDMAN		
F & G (NY)		
WATERMAN		
Sig Solares		
Haldeman		
TOTAL		
DATE OF PRINT ISSUE		

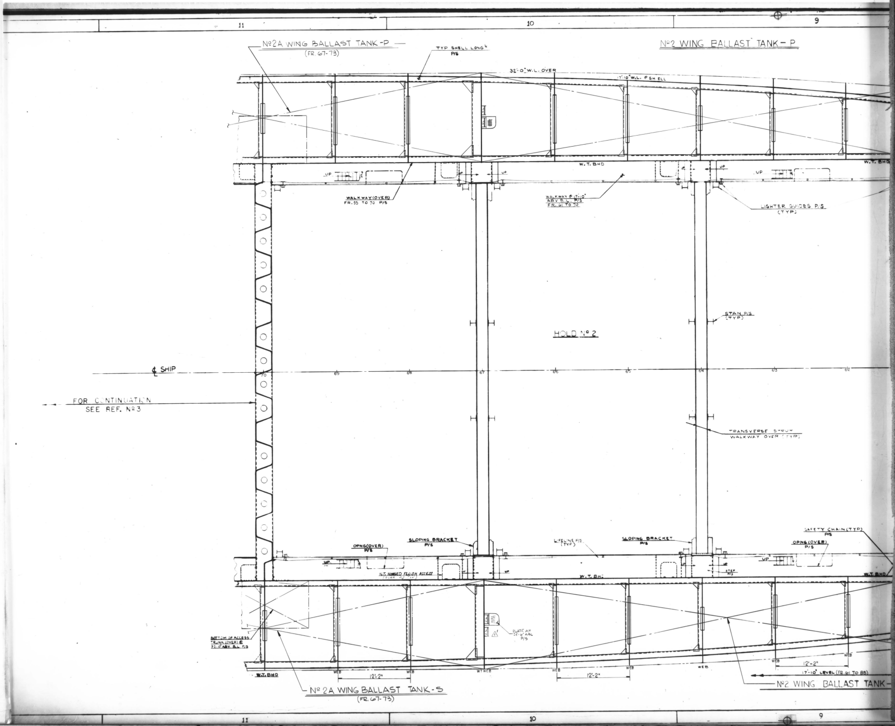
C7-1000 01-03-07



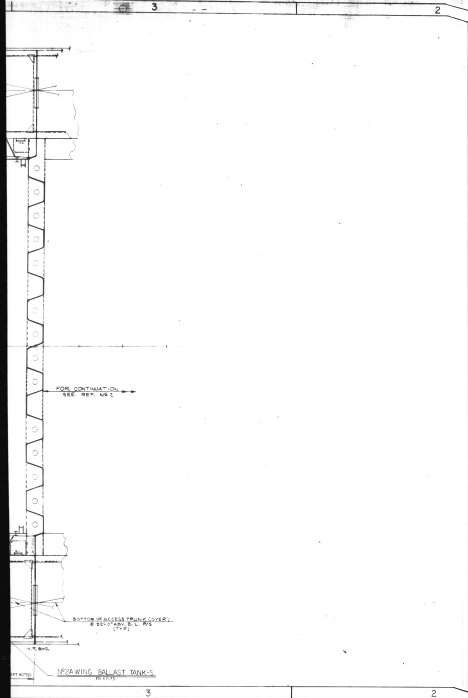
RED. 8X DATE 7-81
MA. NO. H-7 BLDR. NO. 01-03-07
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-7 BLDR. NO. 01-03-07
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-7 BLDR. NO. 01-03-07
FRAME NO. 4



GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF Nº 1.

REFERENCES

REV	NO	TITLE		DRAWING NO
	6	ENGINEER'S STORES & PAINT LOCKER		30-01-02
	5	ARRGT OF MACHY IN ENGINE RM PLAN		40-00-01
	4	ARRGT & DET ENGINEER'S WORKSHOP		91-01-01
	3	32'-0" THRU 40'-0" LEVELS AFT		01-03-10
	2	17'-10" THRU 26'-0" LEVELS FWD		01-03-07
	1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000	01-03-03

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-08 REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS. AND CONTRACT ARRGTS.
1		1. RELEASE RESERVATION Nº 1 2. REVISED ENGINEER'S MACHINE SHOP; DELETED STOREROOM FR 89-90 (P) ABOVE ITEMS TO SUIT DEVELOPMENT

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G NO. L-772/398 JUNE 26-1978		[illegible]		
1	5-73-79	F&G 6-25-79				
2						
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	~~VERTICAL LADDERS IN WING TANKS PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY: FR DATE 5-31-78
CHECKED BY: [signature] DATE 6-7-78
APVD: [signature] 6-13-78
APVD: J.J. Murphy 6-14-78 PROJECT MANAGER
APVD: [signature] VP CHIEF ENGINEER

GENERAL ARRG'T
17'-10" THRU 31'-6" LEVELS AFT

SIZE H | A S I DWG NO **C7-1000** 01-03-08 | REV 1
SCALE 1/4" = 1'-0"

A S I DWG NO C7-1000 01-03-08 REV 1

DISTRIBUTION

DEPARTMENT	PRELIM 0	REVISION 1
PRODUCTION	12	13
PROD PLANNING		1
MOLD LOFT		
ESTIMATING		
PROJECT MANAGER	1	1
QUALITY CONTROL	1	1
COMPUTER APPL		
ELECTRICAL	1	1
ENGR STANDARDS		
FILES & RECORDS	1	1
HULL		
HULL COMPOSITE	1	1
DESIGN	1	1
OUTFITTING	1	1
STL TAKE OFF		
H V A C		
MATERIAL REQN	1	1
MECHANICAL	1	1
MECH COMPOSITE		
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR	1	1
ADMEASURER		
A B S (N Y)	4	
A B S (N O)		
A B S (YARD)		1
U S C G (N O)	2	
U S C G (YARD)		1
U S P H S	2	
OWNER (HOME)	1	1
OWNER (YARD)		
MARAD (WASH)		
MARAD (YARD)	1	1
FRIEDE & GOLDMAN	3	3
F & G (Y)		1
TOTAL		
DATE OF PRINT ISSUE		

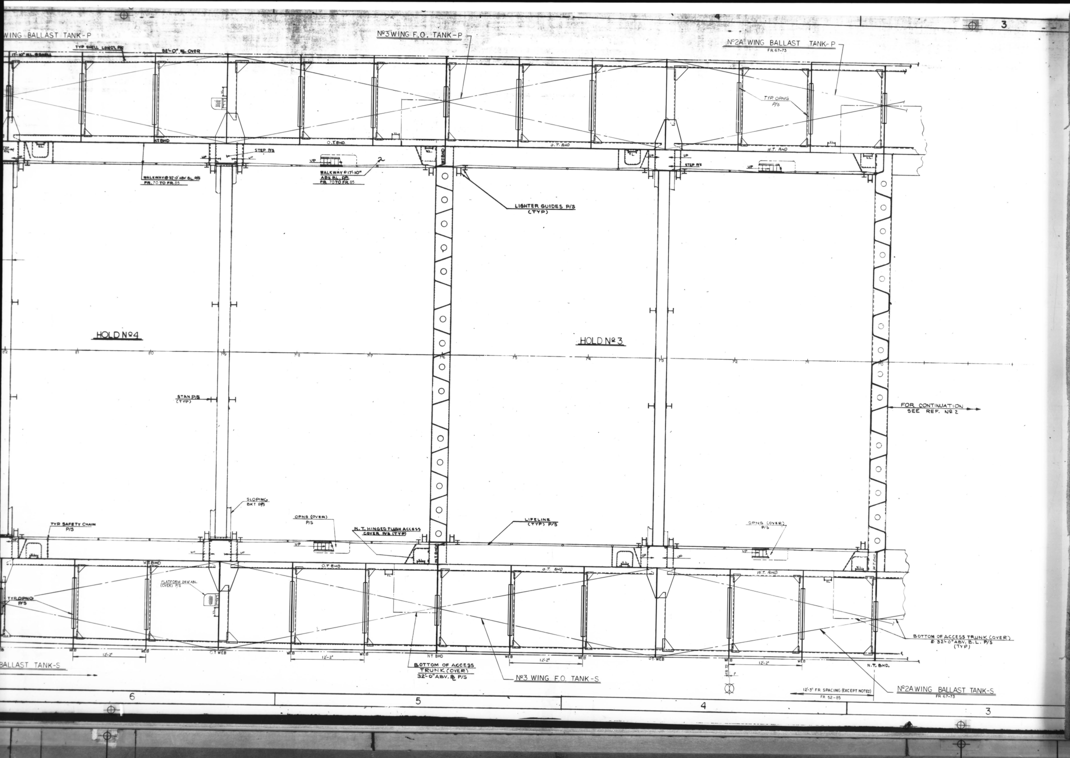
C7-1000 01-03-08

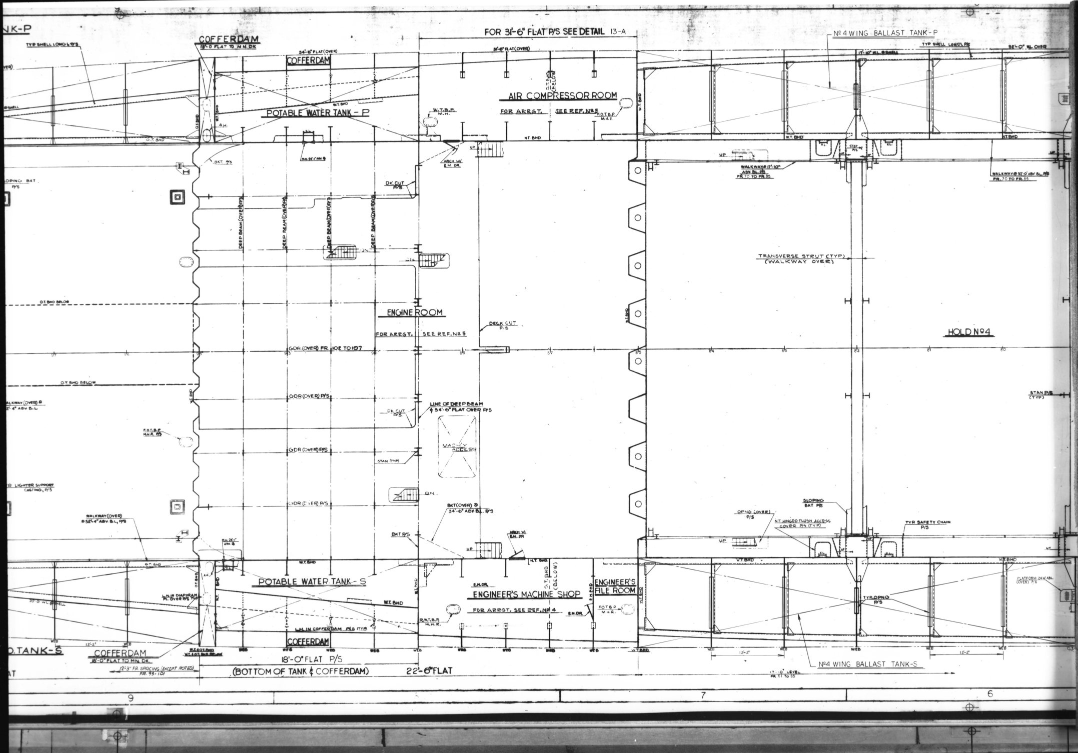
DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
A B S (N Y)	
A B S (N O)	
A B S (YARD)	
U S C G (N O)	
U S C G (YARD)	
U S P H S	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

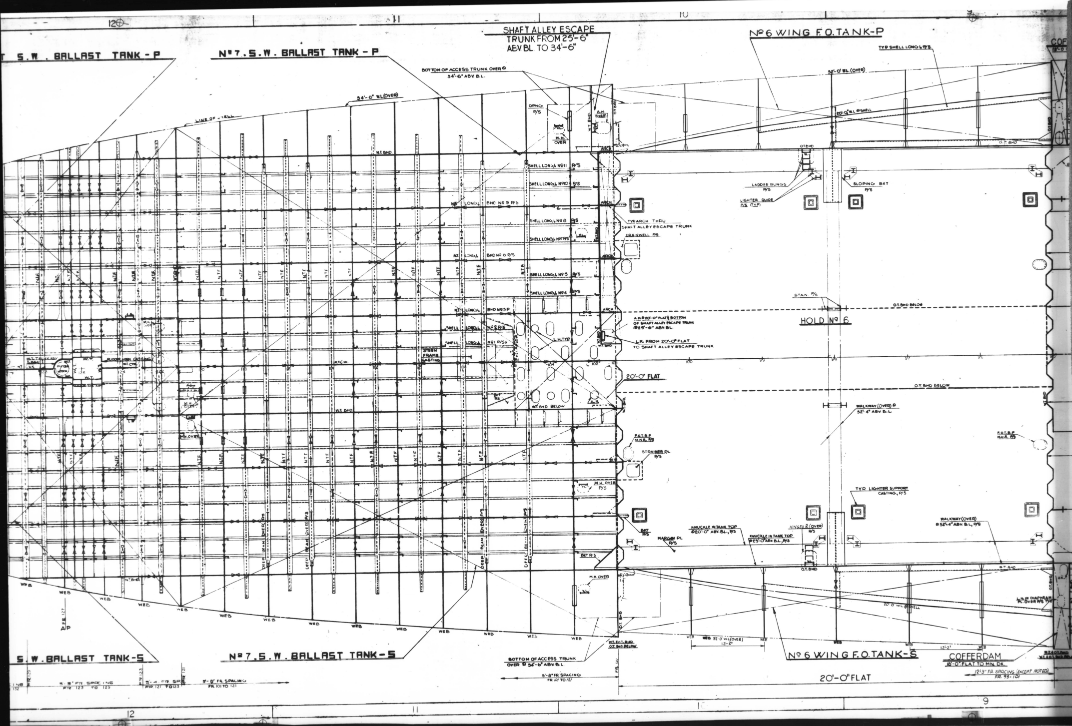
01-03-08 C7-1000

RED. 8X DATE 7-81
MA. NO. H-8 BLDR. NO. 01-03-08
FRAME NO. 1

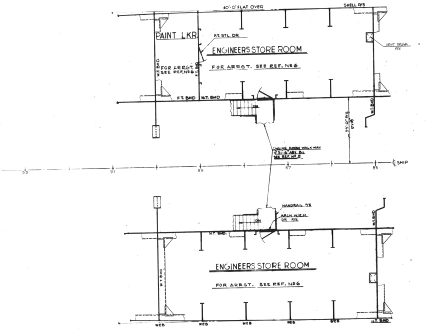

WING BALLAST TANK-P
TYP SHELL LONG'L P/S
32'-0" BL OVER
No3 WING F.O. TANK-P
No2A WING BALLAST TANK-P
FR 67-73
TYP OPNG P/S
W.T. BHD
O.T. BHD
STEP P/S
WALKWAY @ 32'-0" ABV BL P/S FR. 70 TO FR. 85
WALKWAY @ 17'-10" ABV BL P/S FR. 70 TO FR. 85
LIGHTER GUIDES P/S (TYP)
HOLD No4
HOLD No3
STAN P/S (TYP)
FOR CONTINUATION SEE REF. No 2
SLOPING BKT P/S
TYP SAFETY CHAIN P/S
OPNS (OVER) P/S
N.T. HINGED FLUSH ACCESS COVER P/S (TYP)
LIFELINE (TYP) P/S
OPNG (OVER) P/S
PLATFORM 24'-6" ABL (OVER) P/S
TYP OPNG P/S
WEB
12'-2"
O.T. WEB
NT BHD
N.T. BHD.
BOTTOM OF ACCESS TRUNK (OVER) 32'-0" ABV. BL P/S
BOTTOM OF ACCESS TRUNK (COVER) @ 32'-0" ABV. B.L. P/S (TYP)
BALLAST TANK-S
No3 WING F.O. TANK-S
No2A WING BALLAST TANK-S
FR 67-73
12'-3" FR SPACING (EXCEPT NOTED) FR 52-85
6
5
4
3



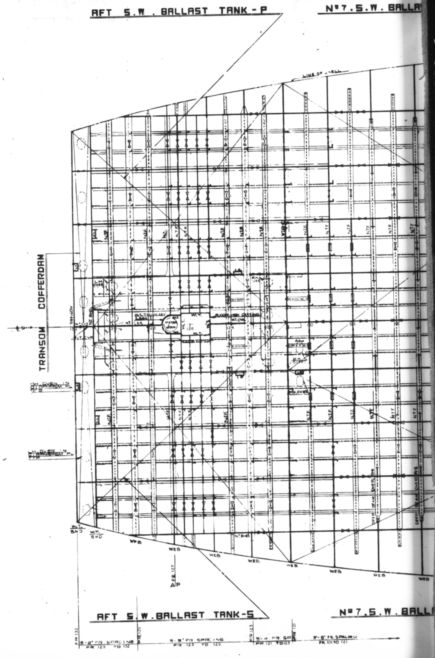
COFFERDAM
18'-0" FLAT TO MN. DK.
COFFERDAM
FOR 31'-6" FLAT P/S SEE DETAIL 13-A
No 4 WING BALLAST TANK - P
AIR COMPRESSOR ROOM
FOR ARRGT. SEE REF. No 5
POTABLE WATER TANK - P
WALKWAY @ 17'-10" ABV. BL. P/S FR. 70 TO FR. 85
WALKWAY @ 32'-0" ABV. BL. P/S FR. 70 TO FR. 85
DEEP BEAM (OVER) P/S
DK. CUT P/S
TRANSVERSE STRUT (TYP) (WALKWAY OVER)
O.T. BHD BELOW
ENGINE ROOM
FOR ARRGT. SEE REF. No 5
DECK CUT P/S
HOLD No 4
GDR (OVER) FR. 102 TO 107
GDR (OVER) P/S
LINE OF DEEP BEAM & 34'-6" FLAT OVER P/S
STAN P/S (TYP)
MACH'Y ACCESS
STAN (TYP)
SLOPING BKT P/S
OPNG (OVER) P/S
N.T. HINGED FLUSH ACCESS COVER P/S (TYP)
TYP. SAFETY CHAIN P/S
WALKWAY (OVER) @ 32'-4" ABV. B.L. P/S
BKT (OVER) @ 34'-6" ABV. B.L. P/S
POTABLE WATER TANK - S
ENGINEER'S MACHINE SHOP
FOR ARRGT. SEE REF. No 4
ENGINEER'S FILE ROOM
L.H. IN COFFERDAM P/S (TYP)
PLATFORM 24'-6" ABL (OVER) P/S
TYP. OPNG P/S
COFFERDAM
18'-0" FLAT TO MN. DK.
12'-3" FR. SPACING (EXCEPT NOTED) FR. 95-101
COFFERDAM
18'-0" FLAT P/S
(BOTTOM OF TANK & COFFERDAM)
22'-6" FLAT
No 4 WING BALLAST TANK - S
17'-10" LEVEL FR. 81 TO 85
9
7
6



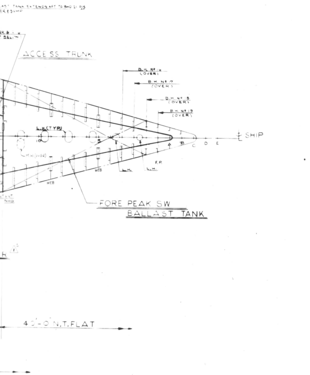
RED. 8X DATE 7-81
MA. NO. H-8 BLDR. NO. 01-03-08
FRAME NO. 4



DETAIL 13-A
31'-6" FLAT P/S



RED. 8X DATE 7-81
MA. NO. H-8 BLDR. NO. 01-03-08
FRAME NO. 5



GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF Nº 1.

REFERENCES

REV	NO	TITLE	DRAWING NO
	5	ARRGT & DET FWD STORES 40'-0" FLAT	30-01-01
	4	ARRGT OF MACHY IN SEWAGE DISPOSAL EQUIP	40-00-05
	3	2ND DK-FWD	01-03-11
	2	32-0 THRU 40-0 LEVELS-AFT	01-03-10
	1	GENERAL ARRGT INNER BOTTOM-FWD	C7-1000 01-03-03

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-09(MC) REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGTS.
1		1. RELEASED RESERVATION NO. 1 2. REVISED CHAIN LOCKER @ 40'-0" LEVEL & ADDED M.H. (OVER) BETW FRS 11 & 12 3. IN FWD STORES FLAT ADDED ACCESS FOR MACHINERY REMOVAL FROM BOW THRUSTER RM @ FR 35, & ADDED VENT TRUNKS P/S @ FR 35 & @ FR 30 4. IN BHD @ FR 36 ADDED ARCH @ 13'-6" OFF ℄ (STBD) 5. REVISED LOCATION OF F.T. BHD FROM FR 33 TO FR 32 (STBD) 6. DELETED F.O. OVERFLOW TANK AFT OF FR 44 @ ℄, & ADDED VERTICAL LADDER 7'-0" OFF ℄ (P) @ FR 44 ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G NO L-772/398 JUNE 26, 1978		112 H-2029 JULY 27-78		
1	5-23-79	F+G 6.25.79				
2						
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	~~VERTICAL LADDERS IN WING TANKS PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY: EWR DATE 5-31-78
CHECKED BY: gjl DATE 6-7-78
APVD: 6-13-78
APVD: PROJECT MANAGER 6-14-77
APVD: VP/CHIEF ENGINEER

GENERAL ARRG'T
32'-0' THRU 40'-0' LEVELS-FWD

SIZE H — A S I DWG NO **C7-1000** 01-03-09 — REV 1
SCALE 1/4" = 1'-0"

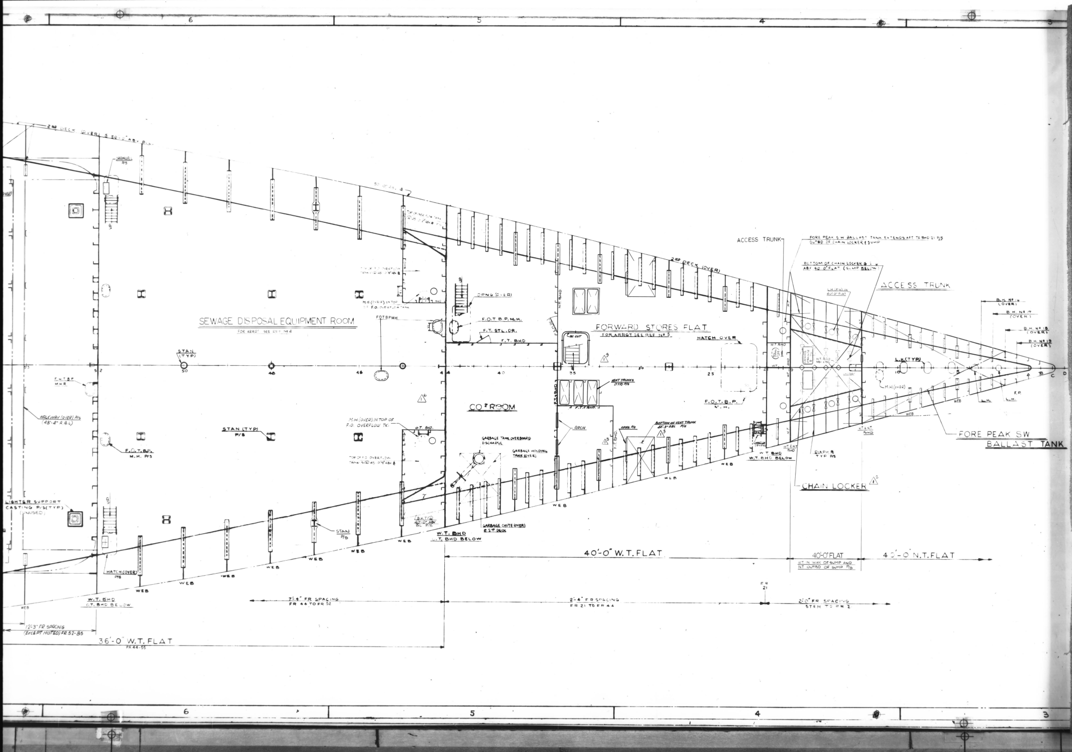
A S I DWG NO C7-1000 01-03-09 REV 1

DISTRIBUTION

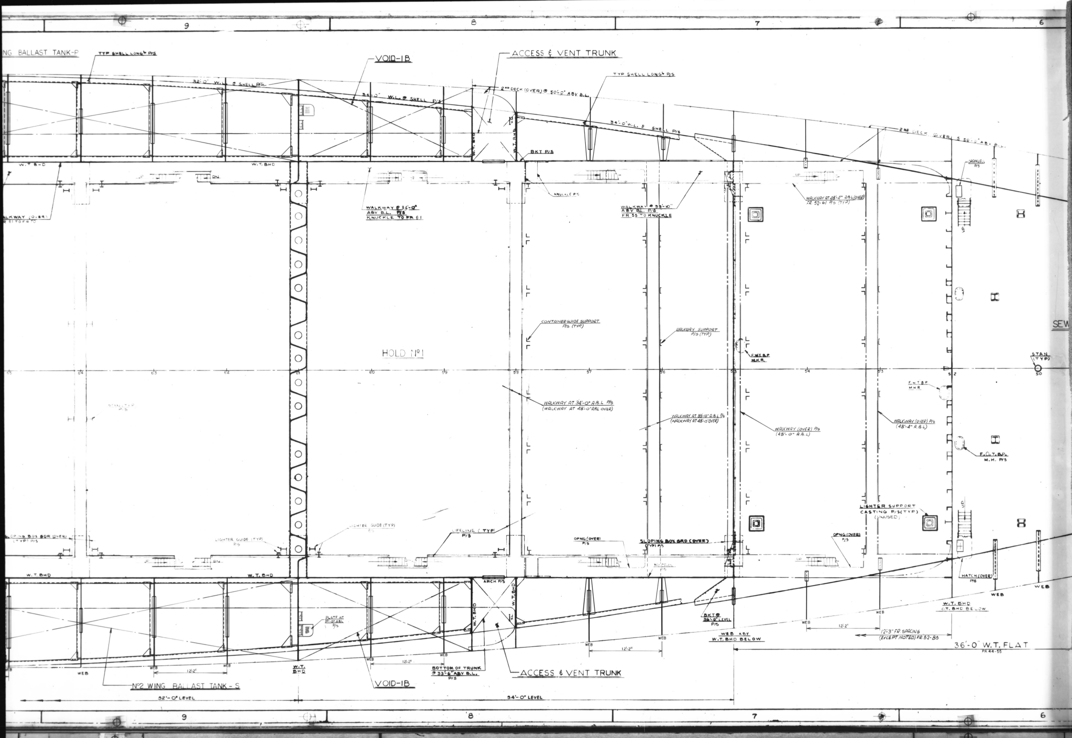
DEPARTMENT / REVISION: PRODUCTION, PROD PLANNING, MOLD LOFT, ESTIMATING, PROJECT MANAGER, QUALITY CONTROL, COMPUTER APPL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, RESEARCH & DEV, BAYOU BLACK, HARVEY, INDUSTRIAL DIV, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, OWNER (HOME), OWNER (YARD), MARAD (WASH), MARAD (YARD), FRIEDE & GOLDMAN, F & G (Y), TOTAL, DATE OF PRINT ISSUE

C7-1000 01-03-09

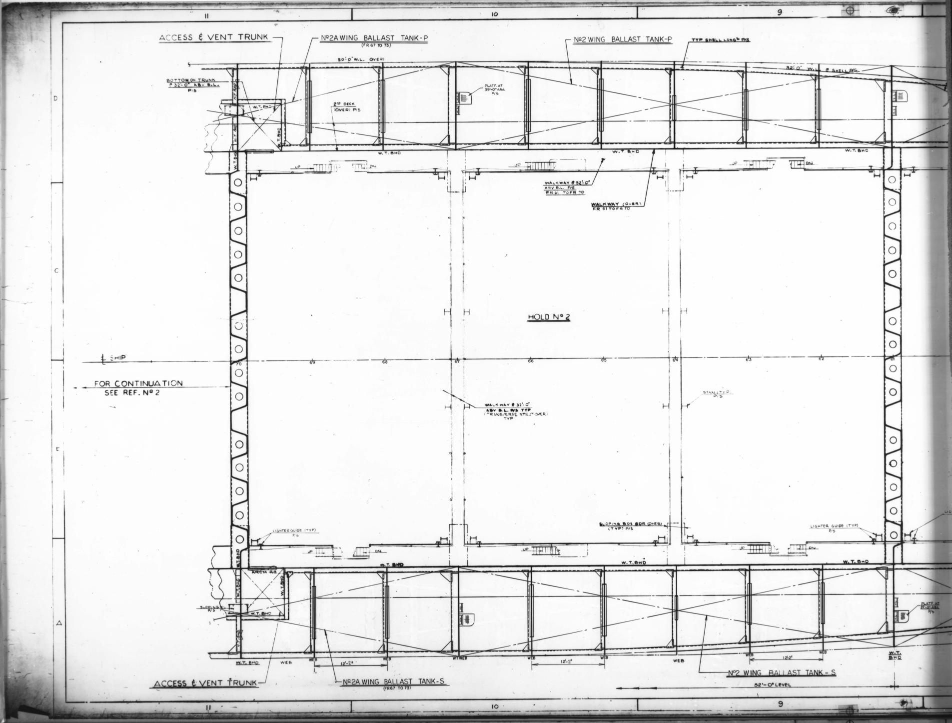
RED. 8X DATE 7-81
MA. NO. H-9 BLDR. NO. 01-03-09
FRAME NO. 1



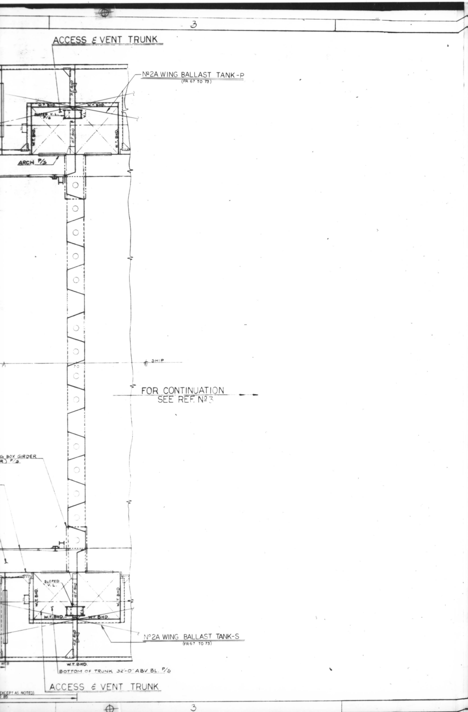
RED. 8X DATE 7-81
MA. NO. H-9 BLDR. NO. 01-03-09
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-9 BLDR. NO. 01-03-09
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-9 BLDR. NO. 01-03-09
FRAME NO. 4



GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF Nº 1.

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-10 REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS. AND CONTRACT ARRGTS.
1		1. RELEASED RESERVATION Nº1 ABOVE ITEM TO SUIT OWNER'S COMMENTS & AS PER DELOPMENT
2	11&12	1. ADDED NAT'L DEF. WT AND "C" BEAM AND L.C.M. - B BEAM @ 34'-6" LEVEL NO 7 HOLD. TO SUIT OWNER'S COMMENTS

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G L-772/3498 DTD JUNE 26, 1978		H-2429 DTD JUL 27, 1978		
1	5-21-79	F&G 6-25-79				B1F/L9-DNDF/6047 JUNE 8, 1979
2	10-22-79	F&G 10-30-79				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	~~VERTICAL LADDERS IN WING TANKS PENDING DEVELOPMENT~~

REFERENCES

NO	TITLE		DRAWING NO
7	ELECTRICIANS SHOP		91-01-03
6	ARRGT & DETS STOREROOM (40'-0" FLAT ENG. RM)		30-01-07
5	ARRGT OF MACHY IN ENGINE RM PLAN		40-00-01
4	2ND DK AFT		01 03 12
3	32-0 THRU 40-0 LEVELS FWD		01-03-09
2	INNER BOTTOM AFT		01-03-04
1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000	01-03-03

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY FWR DATE 5-31-78
CHECKED BY GJL DATE 6-7-78
APVD 6-13-78
APVD J.J. Murphy 6-14-78 PROJECT MANAGER
APVD VP/CHIEF ENGINEER

GENERAL ARRG'T
32'-0" THRU 40'-0" LEVELS AFT

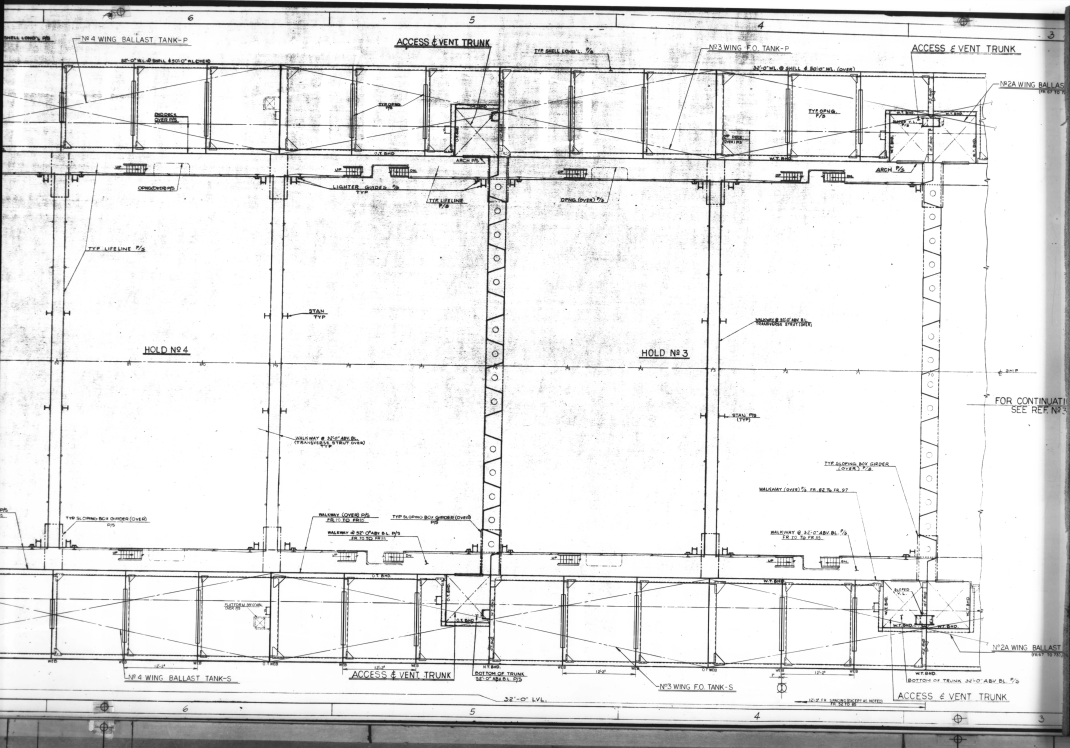
SIZE H | A S I DWG NO **C7-1000** 01-03-10 | REV 2
SCALE 1/4" = 1'-0"

DISTRIBUTION

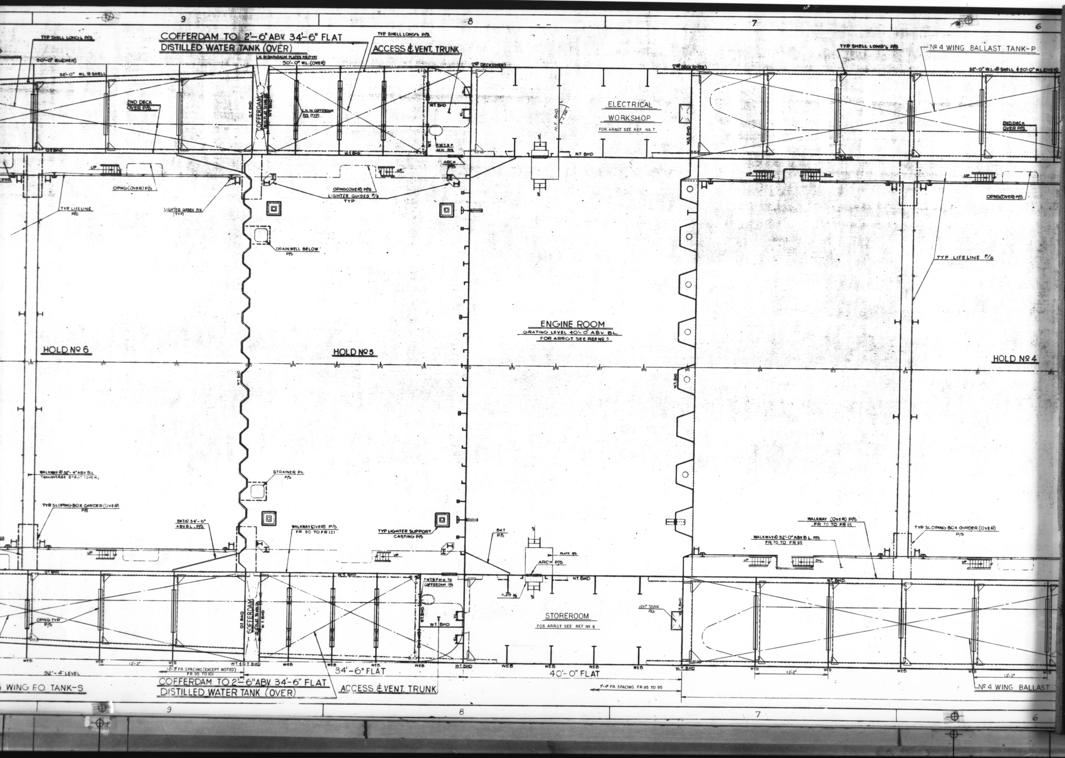
DEPARTMENT
PRODUCTION
PROD PLANNING
MOLD LOFT
ESTIMATING
PROJECT MANAGER
QUALITY CONTROL
COMPUTER APPL
ELECTRICAL
ENGR STANDARDS
FILES & RECORDS
HULL
HULL COMPOSITE
DESIGN
OUTFITTING
STL TAKE OFF
H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
RESEARCH & DEV
BAYOU BLACK
HARVEY
INDUSTRIAL DIV
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
OWNER (HOME)
OWNER (YARD)
MARAD (WASH)
MARAD (YARD)
FRIEDE & GOLDMAN
F&G (V)
HOPEMAN
WATERMAN
S/G SOLARES
TOTAL
DATE OF PRINT ISSUE

C7-1000 01-03-10

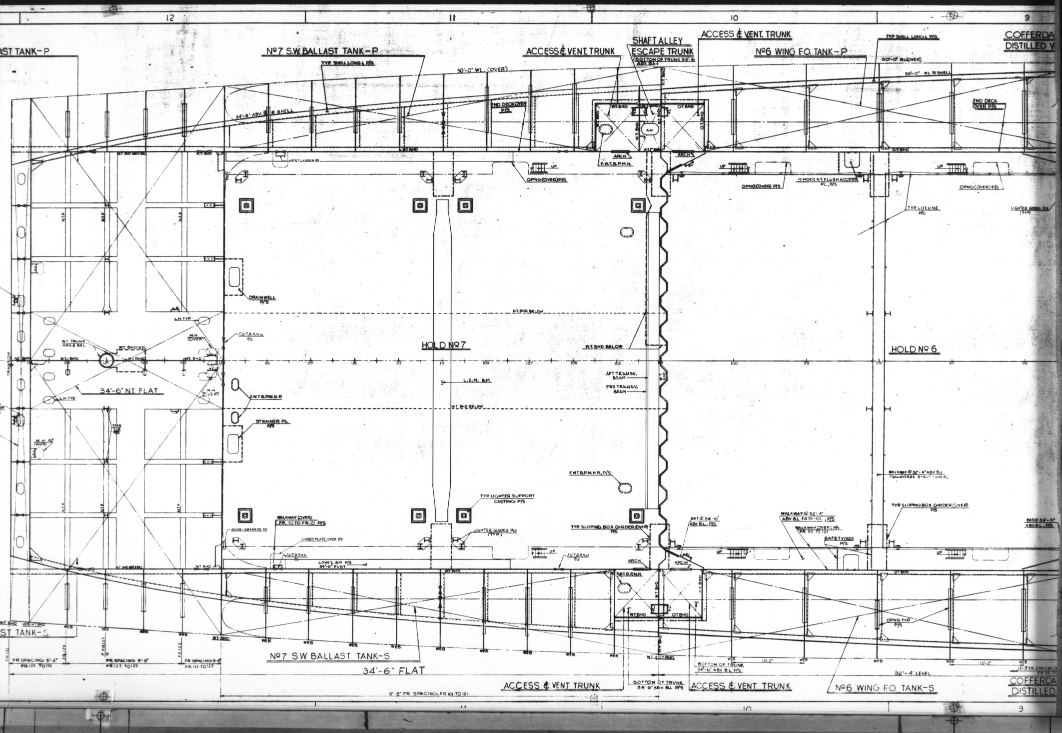
RED. 8X DATE 7-81
MA. NO. H-10 BLDR. NO. 01-03-10
FRAME NO. 1



RED. 8X DATE 7-81
MA. NO. H-10 BLDR. NO. 01-03-10
FRAME NO. 2

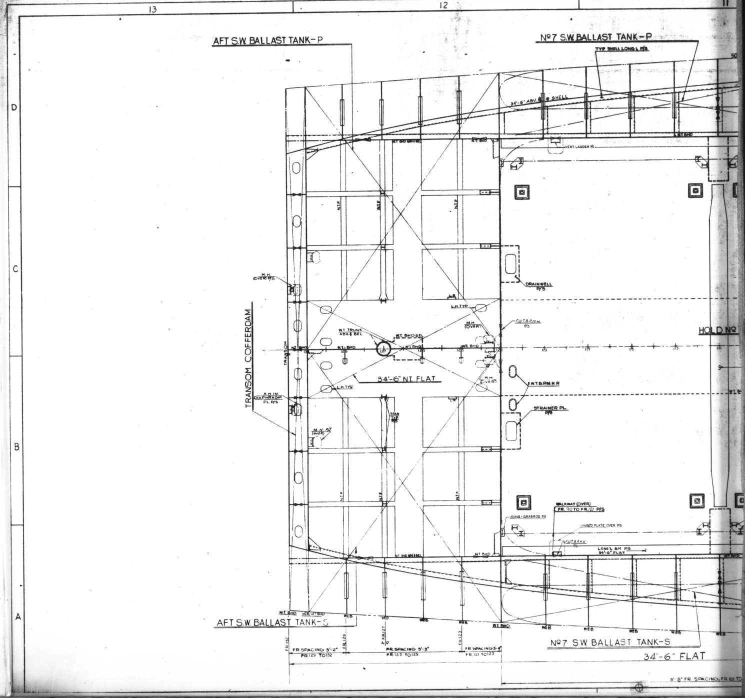


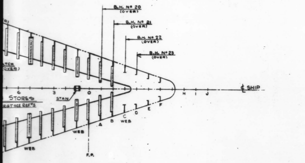
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MA. NO. H-10 BLDR. NO. 01-03-10
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-10 BLDR. NO. 01-03-10
FRAME NO. 4

RED. 8X DATE 7-81
MA. NO. H-10 BLDR. NO. 01-03-10
FRAME NO. 5





LEGEND

STEEL BULKHEAD.
JOINER BHD OR LINING.
STEEL DOOR
JOINER DOOR

SECOND DECK
50'-0" ABV B.L. – NO SHEER OR CAMBER

GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF. NO. 1

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-11(W) REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGT'S.
1	1.	1. RELEASED RESERVATION Nº 1 2. INDICATED F.W.T. B.P. MAN HOLE BETWEEN FRS 11 & 12, 16" OFF ℄ (STBD) 3. REVISED STRUCTURE OF VOIDS TO P/S & AFT OF CHAIN LOCKER & INDICATED W.T. ACCESS TRUNK FRS 19-21, ℄ TO 4'-0" OFF ℄ 4. INDICATED DECK CUTS & VENT TRUNKS FRS 29-31 5. REVISED BHD @ FR 44, & REVISED ARRGT OF CREW'S RECREATION ROOM, STWD STORES & CLEAN LINEN ROOM TO SUIT 6. INDICATED FREEZER IN GALLEY FR 48 @ ℄ 7. INDICATED HATCH (OVER) IN STORES CONTAINER STORAGE 18" OFF ℄ (STBD) ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G [illegible] JUNE-27-1978		[illegible] JULY 27-78	[illegible] JULY 7-1978	
1	5-23-79 [signature]	F+G 6-25-79				
2						
3						
4						
5						
6						
7						
8						
9						
10						

A S I DWG NO C7-1000 01-03-11 REV 1

RESERVATIONS

NO	DESCRIPTION
1	~~VERTICAL LADDERS & M.H.s (OVER) IN WING TANKS PENDING DEVELOPMENT~~

REFERENCES

REV	NO	TITLE		DRAWING NO
	8	COMMISSARY SPACES ARRGT		34-01-01
	7	DISPOSAL SYSTEM		36-04-01
	6	SHIPS STORES CONTAINER STOWAGE		12-05-10
	5	ARRGT AND DETS BOS'N STORES FWD 2ND DK		30-01-03
	4	MAIN DECK FWD		01-03-13
	3	2ND DECK AFT		01-03-12
	2	32'-0" THRU 40'-0" LEVELS FWD		01-03-09
	1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000	01-03-03

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY FR DATE 5-31-78
CHECKED BY GJL DATE 6-7-78
APVD [signature] 6-13-78
APVD J.J. Murphy 6-14-78 PROJECT MANAGER
APVD [signature] VP/CHIEF ENGINEER

GENERAL ARRG'T
SECOND DECK FWD

SIZE H A S I DWG NO **C7-1000** 01-03-11 REV 1
SCALE 1/4" = 1'-0"

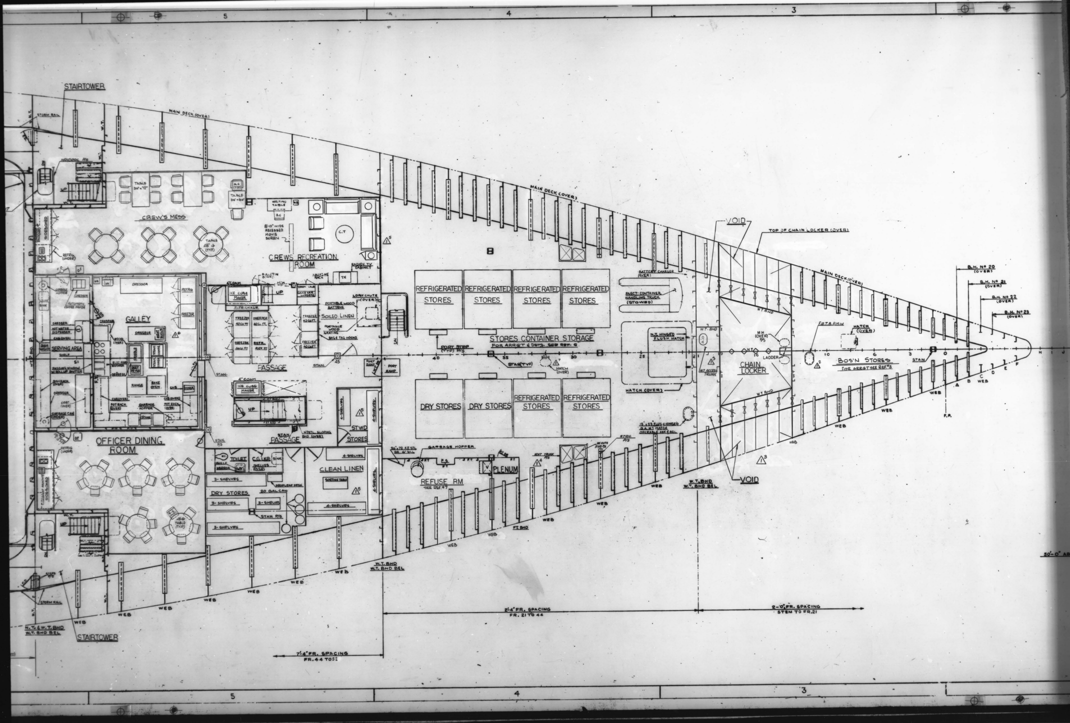
A S I DWG NO C7-1000 01-03-11 REV 1

DISTRIBUTION

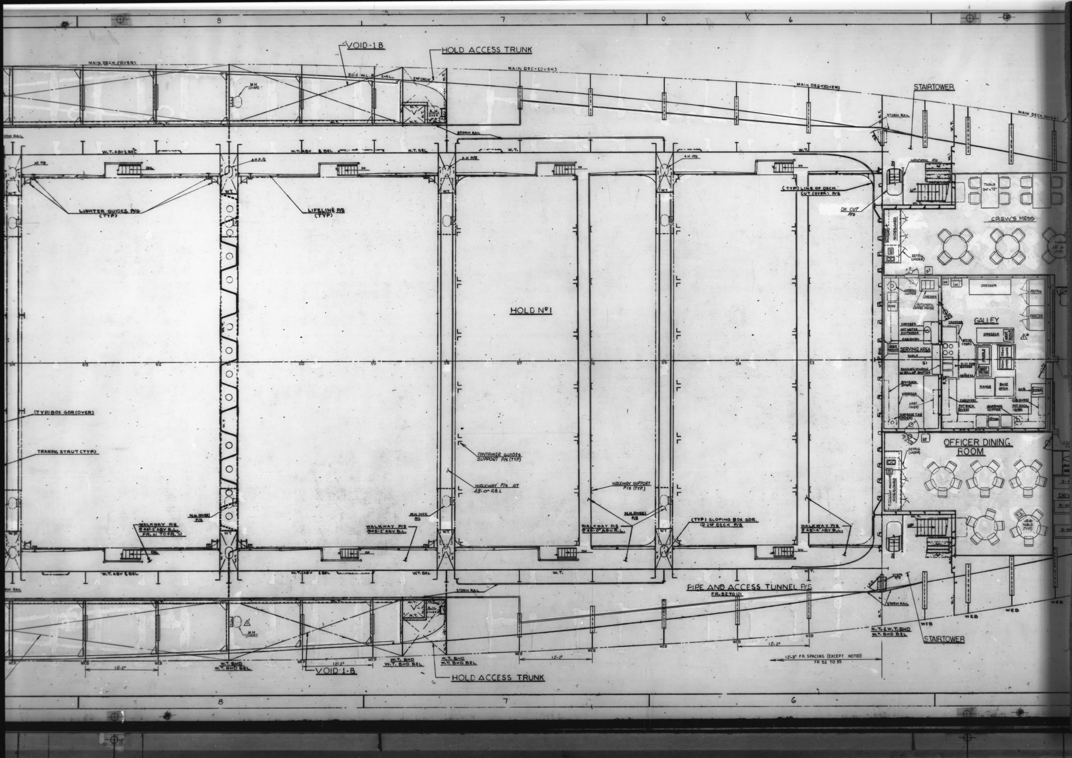
DEPARTMENT	PRELIM	0	1
PRODUCTION		12	13
PROD PLANNING			1
MOLD LOFT			
ESTIMATING			
PROJECT MANAGER		1	1
QUALITY CONTROL		4	2
COMPUTER APPL			
ELECTRICAL		1	1
ENGR STANDARDS			
FILES & RECORDS		1	1
HULL			
HULL COMPOSITE		1	1
DESIGN		1	1
OUTFITTING		1	1
STL TAKE OFF			
H V A C		1	1
MATERIAL REQN		1	1
MECHANICAL		1	1
MECH COMPOSITE			
RESEARCH & DEV			
BAYOU BLACK			
HARVEY			
INDUSTRIAL DIV			
SERVICE FOUNDRY			
JOINER CONTRACTOR		1	1
ADMEASURER			
ABS (NY)		4	
ABS (NO)			
ABS (YARD)			1
USCG (NO)		2	
USCG (YARD)			1
USPHS		2	
OWNER (HOME)		1	1
OWNER (YARD)			
MARAD (WASH)			
MARAD (YARD)		1	1
FRIEDE & GOLDMAN		3	3
F&G (Y)			1
TOTAL			
DATE OF PRINT ISSUE			

C7-1000 01-03-11

DISTRIBUTION
DEPARTMENT REVISION
PRODUCTION, PROD PLANNING, MOLD LOFT, ESTIMATING, PROJECT MANAGER, QUALITY CONTROL, COMPUTER APPL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, RESEARCH & DEV, BAYOU BLACK, HARVEY, INDUSTRIAL DIV, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, OWNER (HOME), OWNER (YARD), MARAD (WASH), MARAD (YARD)
TOTAL
DATE OF PRINT ISSUE
C7-1000 01-03-11

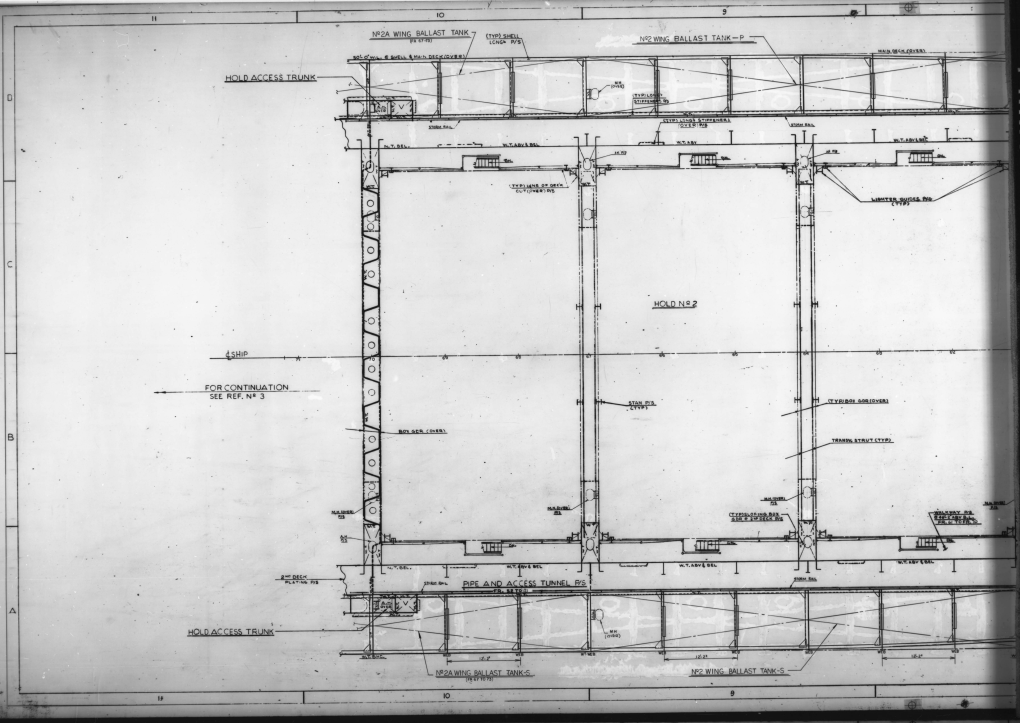


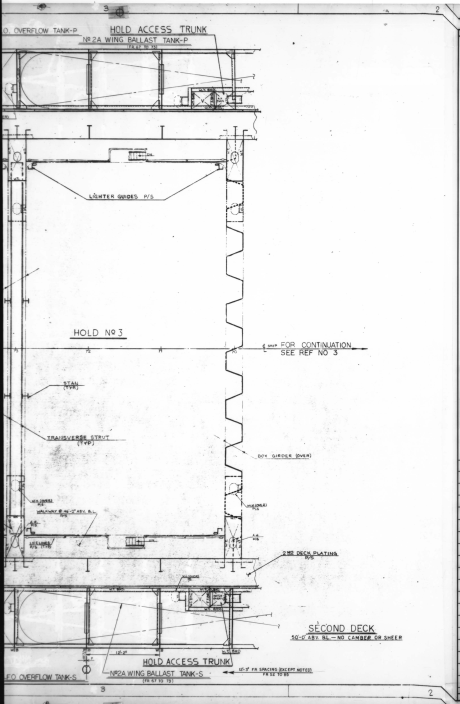
RED. 8X DATE 7-81
MA. NO. H-11 BLDR. NO. 01-03-11
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-11 BLDR. NO. 01-03-11
FRAME NO. 3

RED. 8X DATE 7-81
MA. NO. H-11 BLDR. NO. 01-03-11
FRAME NO. 4





GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF Nº 1.

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-12(W) REV 0 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGT'S.
1		1. RELEASED RESERVATION NO 1 2. DELETED MANHOLES AFT OF FRS 73 & 95 IN BHD 40'-0" OFF ℄ (P/S) 3. ADDED SCUTTLE (OVER) & VERTICAL LDR IN ENGINE ROOM BETWEEN FRS 87-88 APPROX 27'-6" OFF ℄ (P) 4. ADDED FIREMAN'S OUTFIT STOWAGE BETWEEN FRS 89-90 APPROX 48'-0" OFF ℄ (STBD) 5. DELETED INCLINED LADDERS FRS 115-117, 32'-0" OFF (P/S) & ADDED HINGED PLATE & VERTICAL LDR FR 118-119, 35'-0" OFF ℄ (P/S) ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR L-772/395 DTD JUNE 23, 1978		H-2429 JULY 27, 1978	AF-45-117 DTD JUL 7, 1978	
1	5-23-79	F&G 6-25-79				
2						
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1 ⚠	~~VERTICAL LADDERS & M.H.s (OVER) IN WING TANKS PENDING DEVELOPMENT~~

REFERENCES

REV	NO	TITLE	DRAWING NO
	10	DK MAIN SHOP & PAINT LKR AFT 2ND DK	30-01-06
	9	ARRGT & DETS OF BOS'N STORES & HAWSERS AFT 2ND DK	30-01-04
	8	LIGHTER HDLG & MOORING ARRGT & DETS	12-05-08
	7	STEERING ARRGT & FDNS	22-01-04
	6	MOORING ARRGT & FDNS	12-01-01
	5	ARRGT OF MACHY IN ENGINE RM PLAN	40-00-01
	4	MAIN DK AFT	01-03-14
	3	2ND DK FWD	01-03-11
	2	32'-0" THRU 40'-0" LEVELS AFT	01-03-10
	1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000 01-03-03

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY FJR DATE 5-31-78
CHECKED BY GJL DATE 6-7-78
APVD 6-12-78
APVD J.J. Murphy PROJECT MANAGER 6-13-78
APVD VP/CHIEF ENGINEER

GENERAL ARRG'T
SECOND DK. AFT

SIZE H — A S I DWG NO C7-1000 01-03-12 — REV 1
SCALE 1/4"=1'-0"

A S I DWG NO C7-1000 01-03-12 REV 1

DISTRIBUTION

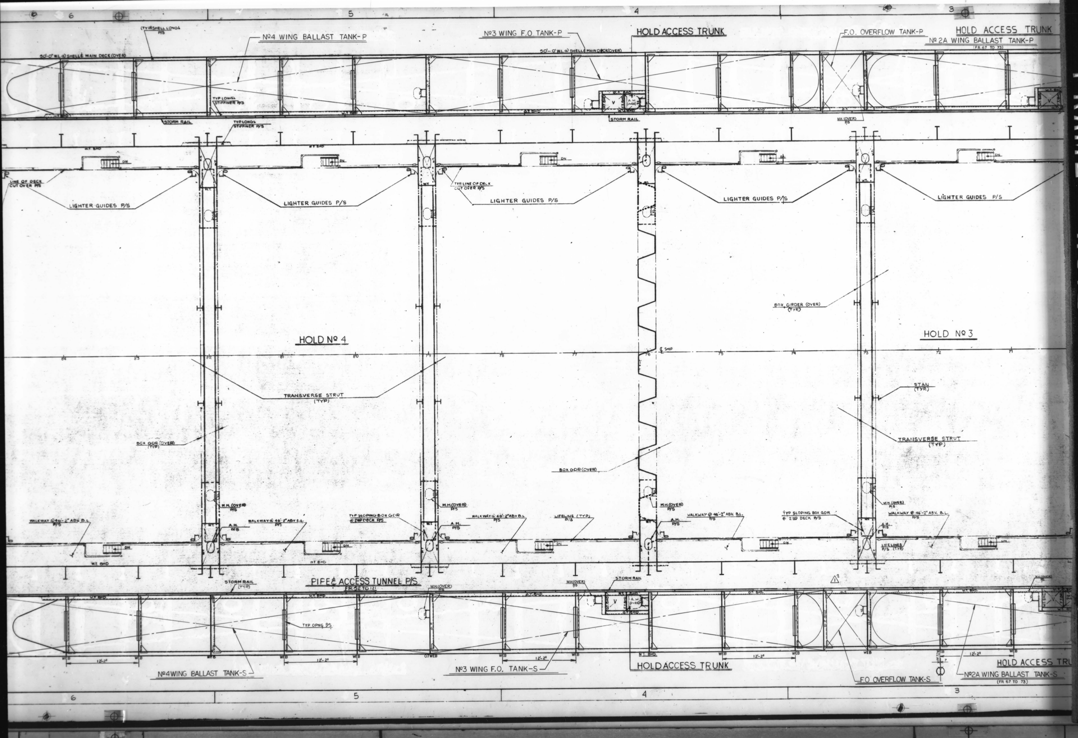
C7-1000 01-03-15

DEPARTMENT	PRELIM	0	1
PRODUCTION		12	13
PROD PLANNING			1
MOLD LOFT			
ESTIMATING			
PROJECT MANAGER		1	1
QUALITY CONTROL		4	2
COMPUTER APPL			
ELECTRICAL		1	1
ENGR STANDARDS			
FILES & RECORDS		1	1
HULL			
HULL COMPOSITE		1	1
DESIGN		1	1
OUTFITTING		1	1
STL TAKE OFF			
H V A C			
MATERIAL REQN		1	1
MECHANICAL		1	1
MECH COMPOSITE			
RESEARCH & DEV			
BAYOU BLACK			
HARVEY			
INDUSTRIAL DIV			
SERVICE FOUNDRY			
JOINER CONTRACTOR		1	1
ADMEASURER			
ABS (NY)		4	
ABS (NO)			
ABS (YARD)			1
USCG (NO)		2	
USCG (YARD)			1
USPHS		2	
OWNER (HOME)		1	1
OWNER (YARD)			
MARAD (WASH)			
MARAD (YARD)		1	1
FRIEDE & GOLDMAN		3	3
F&G (Y)			1
TOTAL		38	33
DATE OF PRINT ISSUE		6/13/78	5/24/79

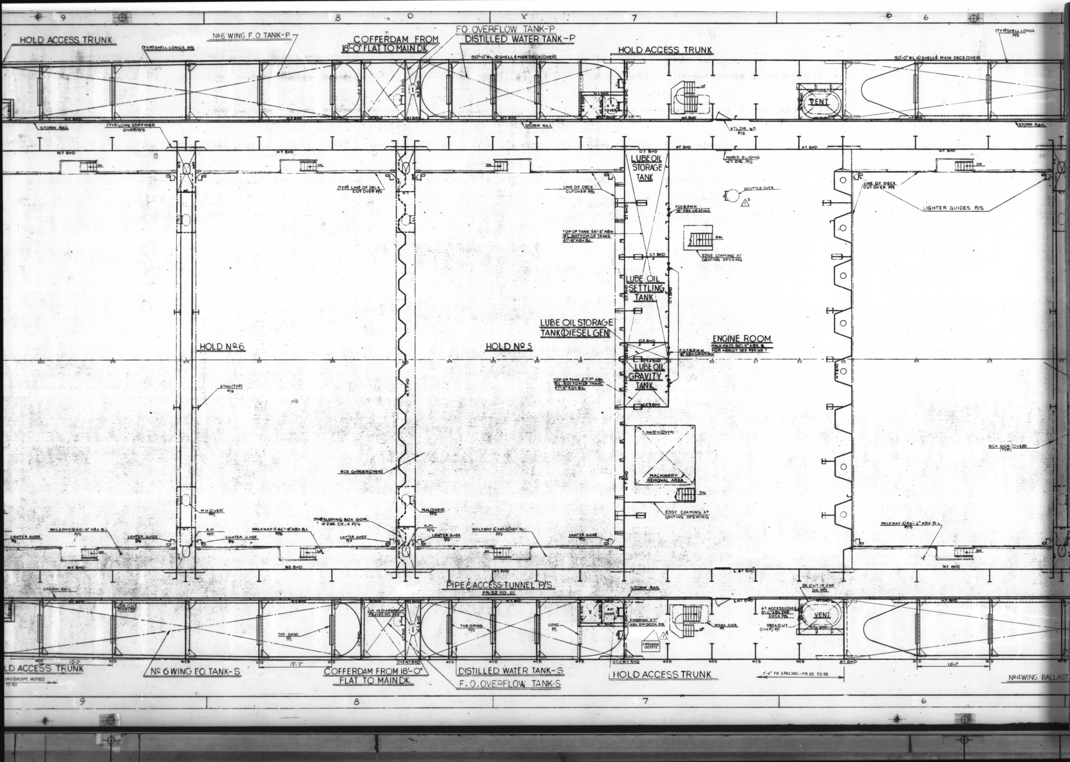
DISTRIBUTION

C7-1000 01-03-15

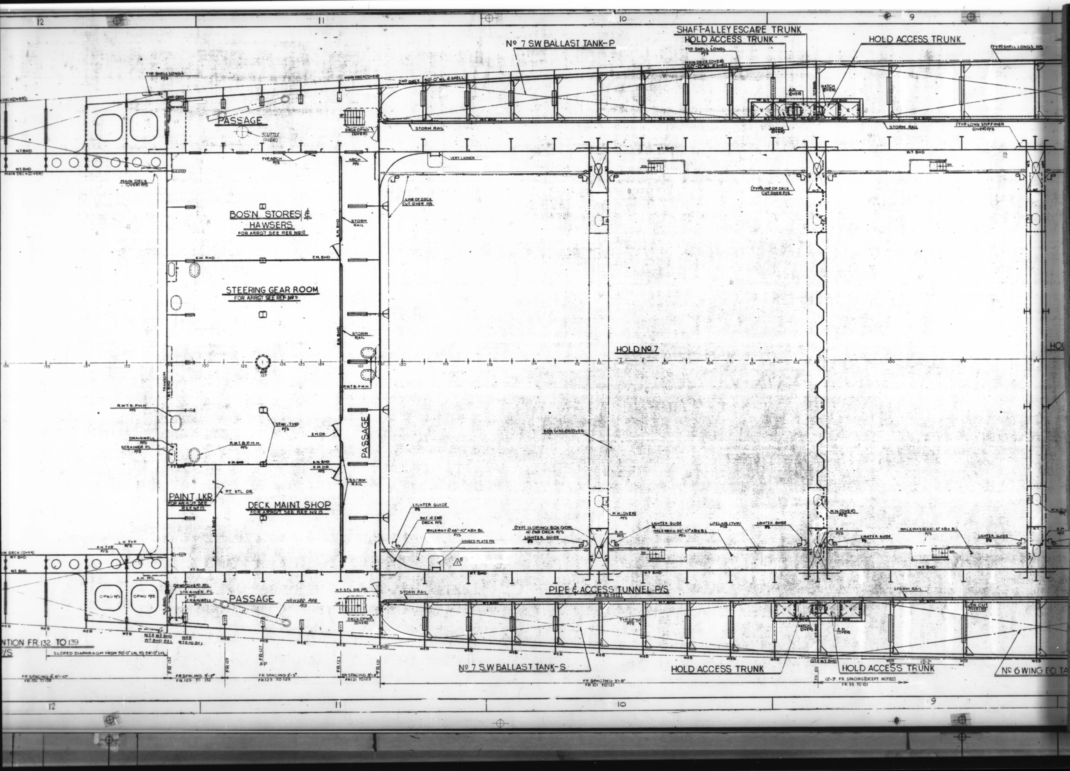
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	



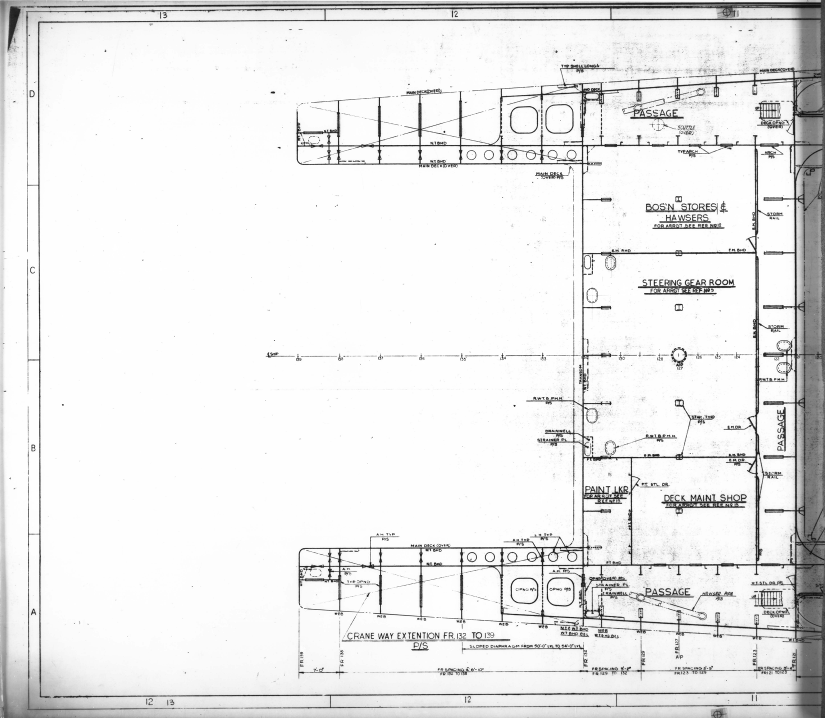
RED. 8X DATE 7-81
MA. NO. H-12 BLDR. NO. 01-03-12
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-12 BLDR. NO. 01-03-12
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-12 BLDR. NO. 01-03-12
FRAME NO. 4



RED. 8X DATE 7-81
MA. NO. H-12 BLDR. NO. 01-03-12
FRAME NO. 5

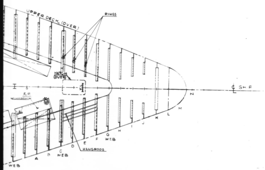
RED. 8X DATE 7-81 MA. NO. H-13 BLDR. NO. 01-03-13 FRAME NO. 1

GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF Nº 1.

LEGEND

- STEEL BULKHEAD
- JOINER BULKHEAD OR LINING
- STEEL DOOR
- JOINER DOOR



MAIN DECK
61'-0" ABV B.L. – CAMBER – NO SHEER

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-13 (W) REV 4 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGTS.
1		1. RELEASED RESERVATION # 1, 2, & 3 2. REVISED ARRGT BOSN STORES FWD FR G-21 TO INCLUDE STRUCTURAL CHANGES & ANCHOR HANDLING MACHINERY. 3. ADDED VENT TRUNKS @ FR 30 APPROX 22'-0" OFF ℄ (P/S) 4. REVISED W.T. PONTOON HATCHCOVERS THROUGHOUT TO SUIT DEVELOPMENT & REVISED LOCATION OF MANHOLES TO SUIT. 5. ADDED CRANE CABLE TRAY (STBD) 6. REVISED LOCATION OF DECK STOWAGE LKRS TO FR 62 (P/S) & REVISED LIGHTER CRANE TIE-DOWN LOCATIONS TO FR 67 (P/S) 7. ADDED TURNBUCKLE BOXES APPROX @ FR 60-61, & FR 65-66 8. INDICATED CRANE LEG TIEDOWNS APPROX FR 55-56 & FRS 59-60, 40'-0" OFF ℄ (P/S) 9. REVISED CRANE RAIL STRUCTURE @ FR 50-51 10. ADDED TANK VENT @ SHELL FR 50 (P/S) 11. ADDED V.L. FROM DECK TO HATCH COVERS APPROX 30'-0" OFF ℄ STBD 12. ADDED FLOODLIGHT 10'-0" FWD FR 65 CTR'D ON HANDRAIL (P/S) 13. REVISED & RELOCATED CRANE RAIL CROSSOVER PLATFORMS BETWEEN FRS 51 & 62 (P/S) ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT
2	 7-11 5 6	1. REVISED BOS'N STORES ARRGT. AS PER LATEST REVISED ARRG'T DWG TO SUIT OWNERS LTR 2. ADDED TELESCOPING LIFTBEAM ASS'Y IN STOWED POS. AND REMOVED TURNBUCKLE BOX ON STBD SIDE ABOUT FR 61. 3. ADDED CELL DESIGNATIONS. 4. STEWARD OFFICE WAS STEWARD/COOK OFFICE. 5. CHIEF COOK S.R. WAS COOK/BAKER S.R. 6. 8-12 ADDED TO BOSUN S.R. 7. 4-8 OS #1 S.R. 8. 12-4 OS #2 S.R. 9. A.B. #1 S.R. 8-12 WAS A.B.S. #1 2 8-12 2 3 12-4 3 4 12-4 4 5 4-8 5 A.B. #6 S.R. 4-8 WAS A.B.S. #6

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G NO L-772/1801 JUNE 27-1978		NO H-2429 JULY 27-1978		
1	5-23-79	F&G NO L-772/2160 JUNE 26, 1979				
2	7/21/80	NOT REQUIRED				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
3.	~~PIPING ON MAIN DK. PENDING DEVELOPMENT~~
2.	~~MOORING ARRGT. PENDING DEVELOPMENT~~
1.	~~M.H.s IN WING TANKS PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

REFERENCES

REV	NO	TITLE		DRAWING NO
	8	MISC LOCKERS & STOREROOMS DETAILS		30-01-12
	7	MISC DK LKRS		30-01-08
	6	BOS'N STORES FWD MAIN DK		30-01-05
	5	ARRGT & DETS LAUNDRIES		35-01-01
	4	UPPER DK, CABIN DK, BRIDGE DK & HSE TOP		01-03-15
	3	MAIN DK AFT		01-03-14
	2	2ND DK FWD		01-03-11
	1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000	01-03-03

Title Block

A S I JOB NO: **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

GENERAL ARRG'T
MAIN DECK FWD

DRAWN BY: FJR DATE: 5-31-78
CHECKED BY: DATE: 6-7-78
APVD: 6-13-78
APVD: PROJECT MANAGER 6-14-78
APVD: VP/CHIEF ENGINEER

SIZE: H — A S I DWG NO: C7-1000 01-03-13 — REV: 2
SCALE: 1/4" = 1'-0"

A S I DWG NO C7-1000 01-03-13 REV 2

DISTRIBUTION

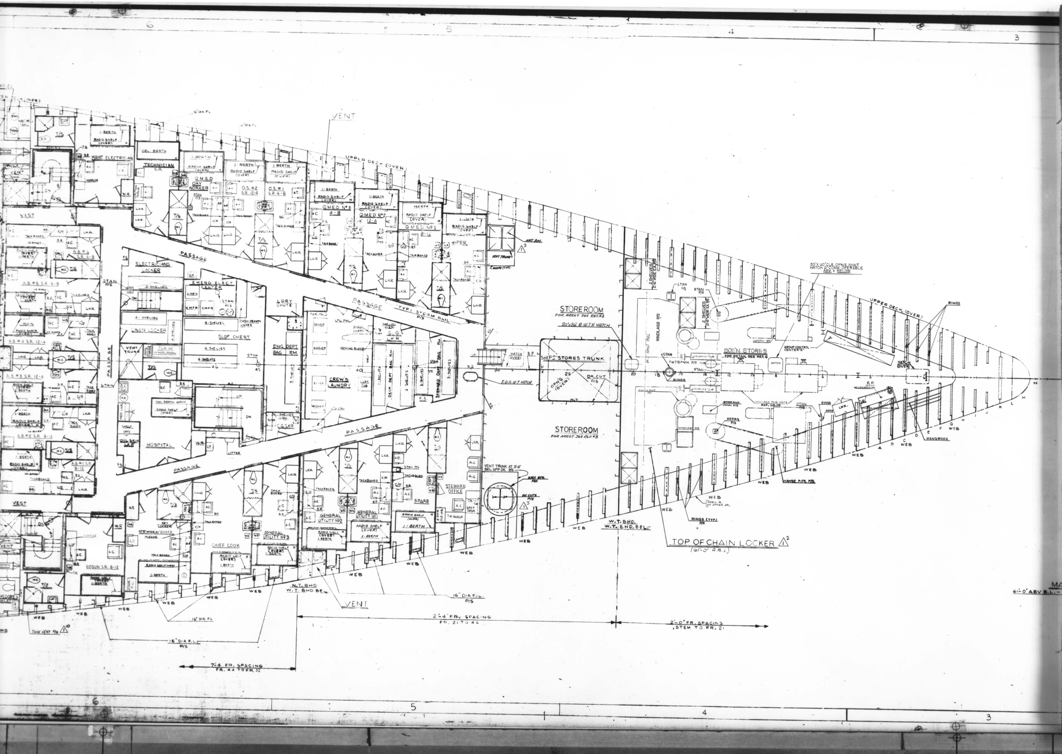
C7-1000 01-03-13

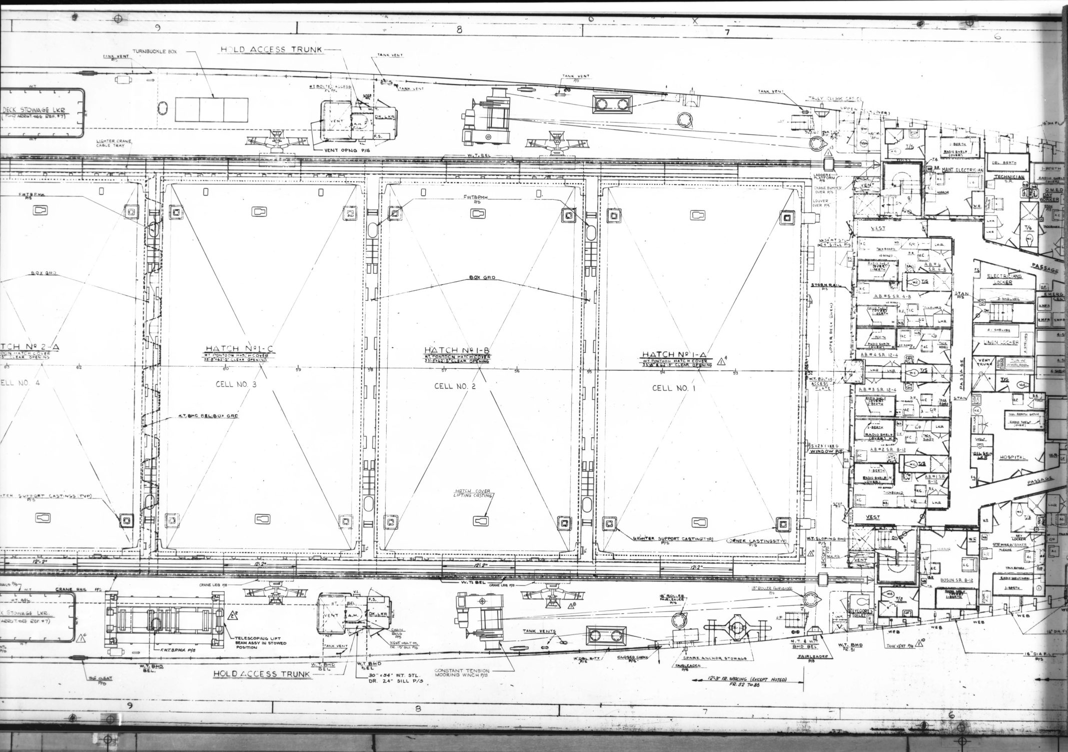
DEPARTMENT	PRELIM	0	1	2
PRODUCTION		12	13	15
PROD PLANNING			1	1
MOLD LOFT				
ESTIMATING				
PROJECT MANAGER		1	1	1
QUALITY CONTROL		4	2	2
COMPUTER APPL				
ELECTRICAL		1	1	1
ENGR STANDARDS				
FILES & RECORDS		1	1	1
HULL				
HULL COMPOSITE		1	1	1
DESIGN		1	1	1
OUTFITTING		1	1	
STL TAKE OFF				
H V A C				
MATERIAL REQN		1	1	1
MECHANICAL		1	1	
MECH COMPOSITE				
RESEARCH & DEV				
BAYOU BLACK				
HARVEY				
INDUSTRIAL DIV				
SERVICE FOUNDRY				
JOINER CONTRACTOR		1	1	
ADMEASURER				
ABS (NY)		4		
ABS (NO)				
ABS (YARD)			1	1
USCG (NO)		2		
USCG (YARD)			1	1
USPHS		2		
OWNER (HOME)		1	1	
OWNER (YARD)				
MARAD (WASH)				1
MARAD (YARD)		1	1	1
FRIEDE & GOLDMAN		3	7	3
F&G (Y)				1
HOPEMAN				1
WATERMAN				4
Sig SOLARES				1
TOTAL		38	38	38
DATE OF PRINT ISSUE		6-15-78	5-25-79	7-21-80

DISTRIBUTION

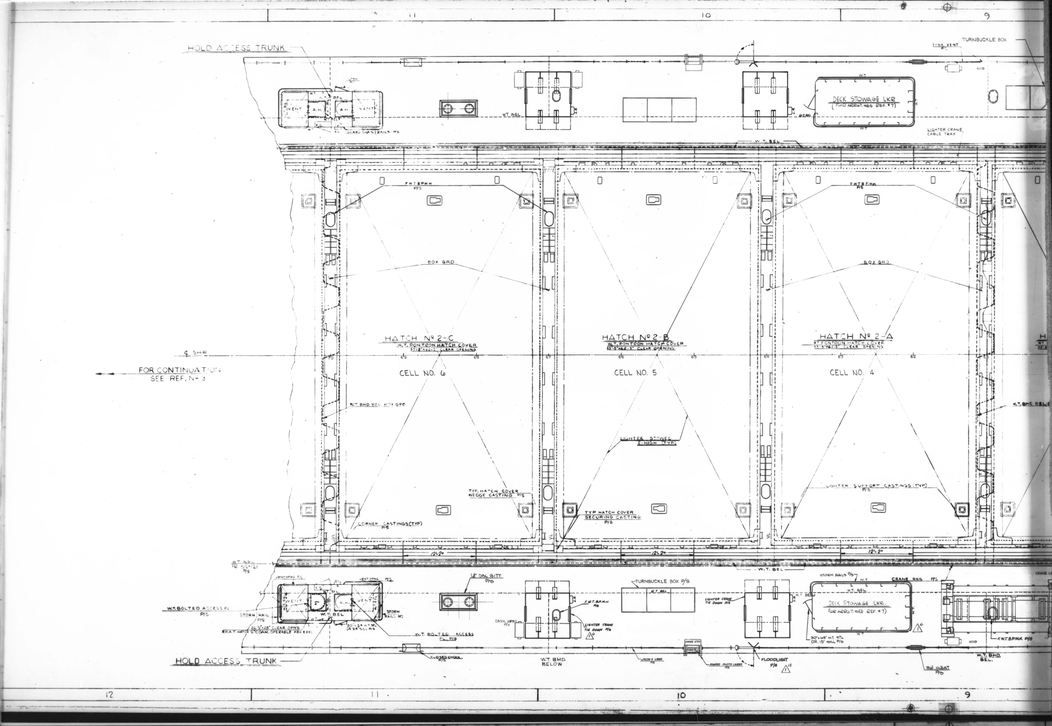
C7-1000 01-03-13

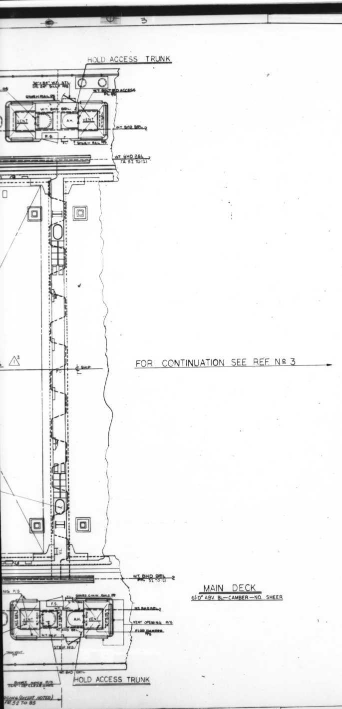
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	


VENT
UPPER DECK (OVER)
MAINT ELECTRICIAN
TECHNICIAN
QMED DAY WORKER
O.S. #2 S.R. 12-4
O.S. #1 S.R. 4-8
QMED No 3 4-8
QMED No 2 12-4
QMED No 1 8-12
WIPER
PASSAGE
ELECTRICIANS LOCKER
EMERG ELECT CENTER
LINEN LOCKER
SLOP CHEST
LDRY CHUTE
ENG DEPT BAG RM.
CREW'S LAUNDRY
STEWARD DEPT BAG RM
DECK DEPT BAG RM
STORM RAIL
HOSPITAL
STOREROOM
FOR ARRGT SEE REF. #8
20"x20" R.W.T.H HATCH
SHIPS STORES TRUNK
F.O.A. W.T. HATCH
BOS'N STORES
WINDLASS
GROUP CONTROL CENTER
RINGS
HANGRODS
HAWSE PIPE P/S
WEB
STEWARD OFFICE
SPARE
GENERAL UTILITY No 1
GENERAL UTILITY No 2
GENERAL UTILITY No 3
CHIEF COOK
STEWARD/BAKER
BOSUN S.R. 8-12
VEST
W.T. BHD.
TOP OF CHAIN LOCKER (61'-0" A.B.L.)
N.T. BHD W.T. BHD BEL.
16" DIA F.L. P/S
16" DIA. FL
TANK VENT P/S
2'-4" FR. SPACING FR. 21 TO 44
2'-0" FR. SPACING STEM TO FR. 21
7'-4" FR. SPACING FR. 44 TO FR. 52
61'-0" ABV B.L.



RED. 8X DATE 7-81
MA. NO. H-13 BLDR. NO. 01-03-13
FRAME NO. 3


HOLD ACCESS TRUNK
TURNBUCKLE BOX
TANK VENT
DECK STOWAGE LKR
W.T. BEL
LIGHTER CRANE CABLE TRAY
BOX GRD
HATCH Nº 2-C
W.T. PONTOON HATCH COVER
CELL NO. 6
HATCH Nº 2-B
W.T. PONTOON HATCH COVER
CELL NO. 5
HATCH Nº 2-A
W.T. PONTOON HATCH COVER
CELL NO. 4
℄ SHIP
FOR CONTINUATION
SEE REF. Nº 3
W.T. BHD BEL BOX GRD
LIGHTER STOWED 2-HIGH (TYP.)
TYP. HATCH COVER WEDGE CASTING P/S
TYP HATCH COVER SECURING CASTING P/S
LIGHTER SUPPORT CASTINGS (TYP) P/S
CORNER CASTINGS (TYP) P/S
W.T. BOLTED ACCESS PL P/S
STORM RAIL P/S
TURNBUCKLE BOX P/S
LIGHTER CRANE TIE DOWN P/S
CRANE RAIL P/S
W.T. BHD BELOW
CLOSED CHOCK P/S
FLOODLIGHT P/S
W.T. BHD. BEL.
12
11
10
9



GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF Nº 1.

REFERENCES

NO	TITLE	DRAWING NO
4	ARRGT OF ELECT EQUIP IN EMERGENCY GEN RM	61-00-02
3	MAIN DK FWD	01-03-13
2	2ND DK AFT	01-03-12
1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000 01-03-03

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-14(W) REV 3 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS AND CONTRACT ARRGT'S.
1		1. RELEASED RESERVATIONS 1, 2, & 3 2. REVISED W.T. PONTOON HATCHCOVERS THROUGHOUT TO SUIT DEVELOPMENT & REVISED LOCATION OF MANHOLES TO SUIT. ADDED VERTICAL LADDERS 3. ADDED PENDANT RACKS @ APPROX FRS 72, 93, & 108 (P/S), ANTI-RACK BAR @ FR 78 (P/S) & TURNBUCKLE BOXES @ FRS 74, 80, & 82 (P/S) APPROX 40'-0" OFF ℄ 4. ADDED CRANE CABLE TRAY STBD 5. INDICATED CONTAINER SUPPORTS & REVISED LOCATION OF TOPS OF VENTS ABOVE MACHY CASING FRS 85-90 & REVISED LOCATION OF R.H.W.Q.A. ESCAPE SCUTTLE TO SUIT 6. REVISED LOCATION HYDRAULIC CRANE & POWER PLANT @ APPROX FR 98 (P/S) 7. ADDED PANAMA CANAL PILOT SHELTER @ FR 106 (P/S) 8. ADDED SEARCHLIGHT STANCHION ON PLTF 69'-6" ABV BL BETWEEN FRS 138 & 139 (P/S) 9. ADDED AFT SEARCHLIGHT STAN & REVISED HANDRAIL @ TRANSOM FR 132, ℄ 10. REVISED LOCATION SHORE POWER CONNECTION BOX @ FR 92, 40'-0" OFF ℄ STBD ABOVE ITEMS TO SUIT OWNERS COMMENTS & AS PER DEVELOPMENT
2	4-12	1. ADDED CELL DESIGNATIONS, AS PER CHANGE ORDER #24

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR. GEN. 772/399 DATED JUN 27, 1978		LTR. DATED JULY 27, 1978	LTR. DATED JULY 10, 1978	
1	5-21-79	F & G 6-25-79				
2	9/2/80	NOT REQUIRED				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
3	~~PIPING ON MAIN DK PENDING DEVELOPMENT~~
2	~~MOORING ARRGT. PENDING DEVELOPMENT~~
1	~~M.H.s. IN WING TANKS PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

GENERAL ARRG'T
MAIN DK AFT

DRAWN BY FMR DATE 5-31-78
CHECKED BY DATE 6-7-78
APVD 6/13/78
APVD PROJECT MANAGER 6-14-78
APVD VP/CHIEF ENGINEER

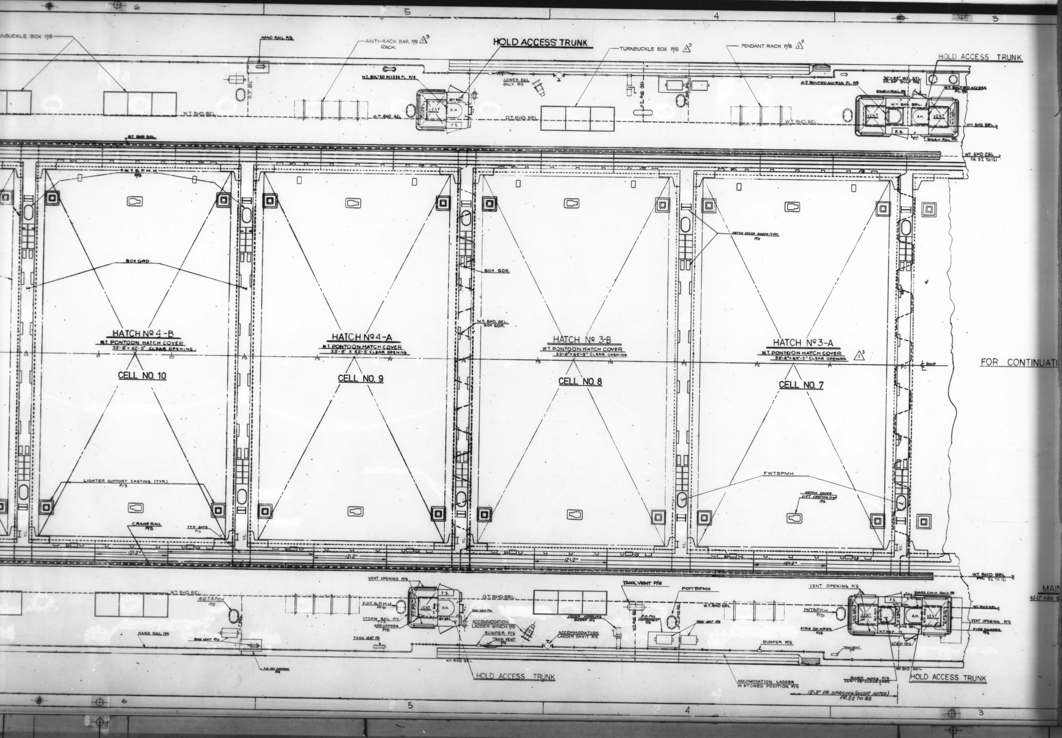
SIZE H A S I DWG NO **C7-1000** 01-03-14 REV 2
SCALE 1/4" = 1'-0"

A S I DWG NO C7-1000 01-03-14 REV 2

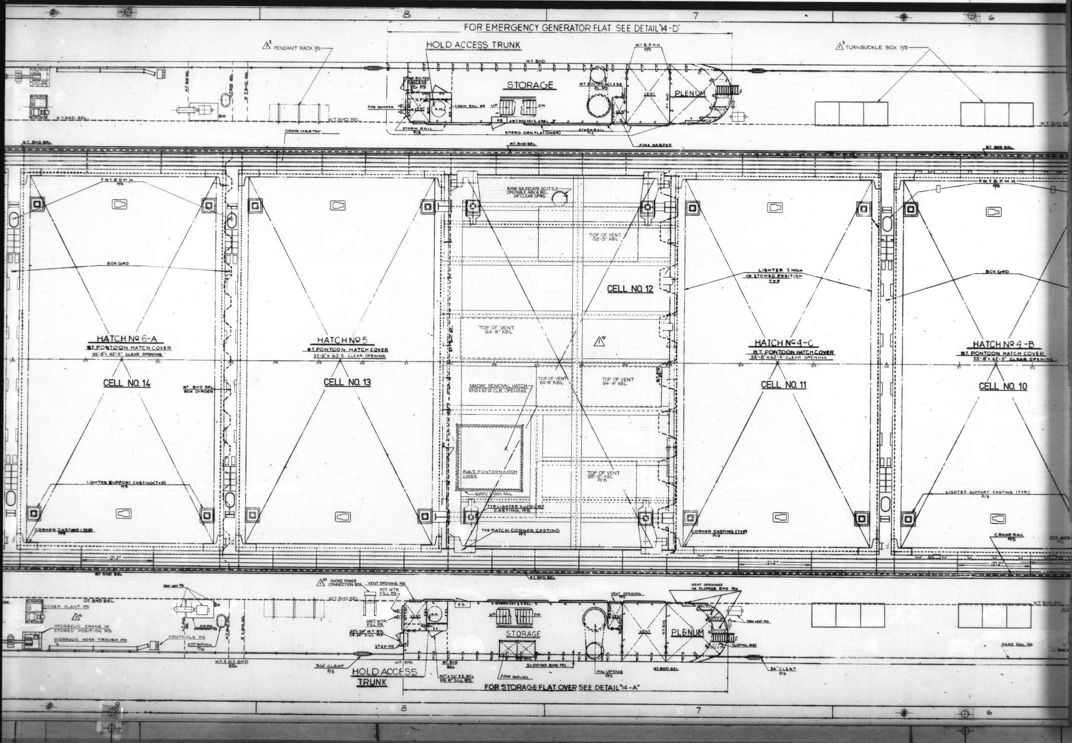
DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
Friede & Goldman	
F & G (Y)	
Sig Sollares	
Hapeman	
TOTAL	
DATE OF PRINT ISSUE	

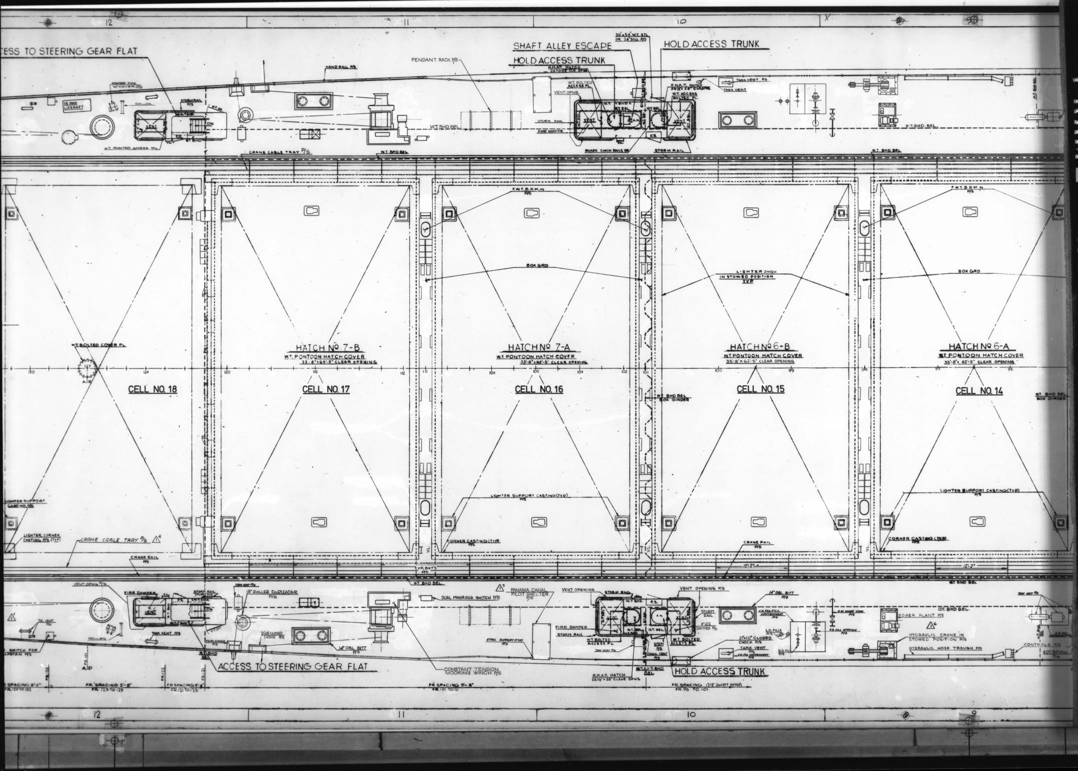
C7-1000 01-03-14



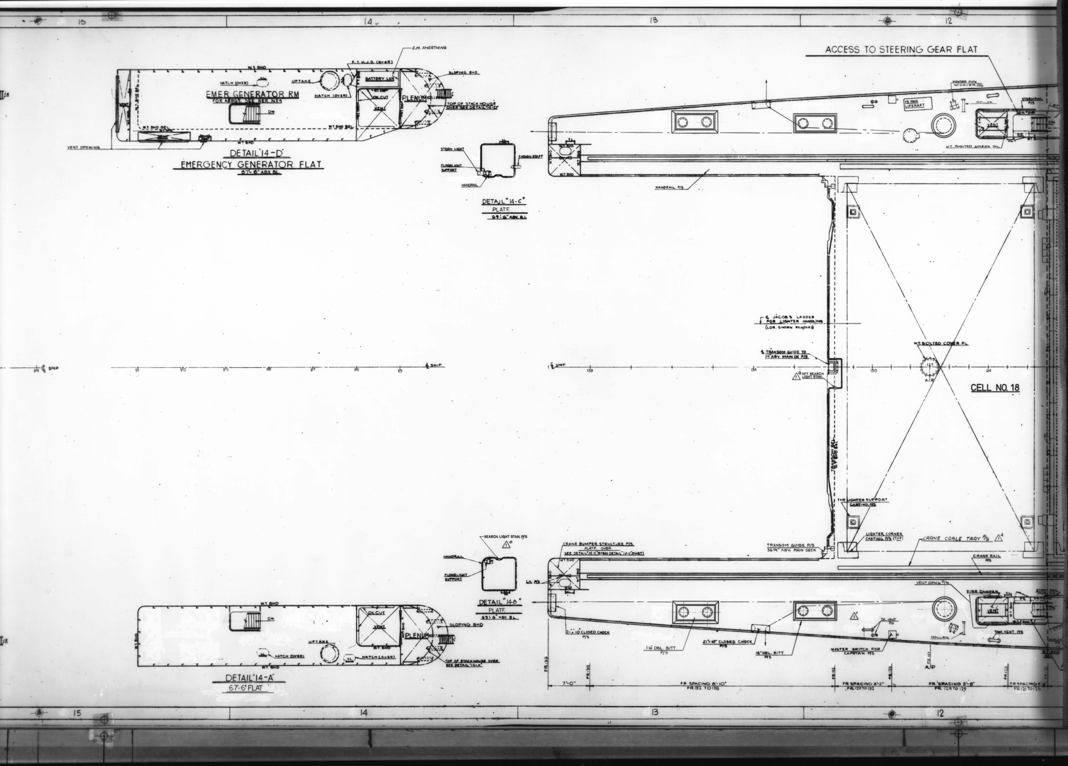
RED. 8X DATE 7-81
MA. NO. H-14 BLDR. NO. 01-03-14
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-14 BLDR. NO. 01-03-14
FRAME NO. 3



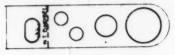
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MA. NO. H-14 BLDR. NO. 01-03-14
FRAME NO. 4



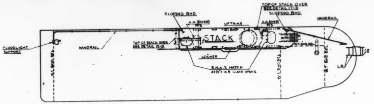
RED. 8X DATE 7-81
MA. NO. H-14 BLDR. NO. 01-03-14
FRAME NO. 5

17 16 15

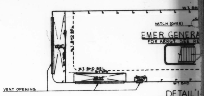
D



DETAIL "17-D"
TOP OF STACK
SLOPES FROM 96'-1" ABV. B.L. @ 4'-3" FWD FR 99 TO 95'-4" ABV. B.L. @ 2'-10" AFT FR 100 P/S



DETAIL "16-D"
TOP OF STACK HOUSE
SLOPES FROM 78'-0" ABV. B.L. @ FR 97 TO 75'-9" ABV. B.L. @ FR 105

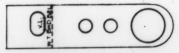


DETAIL "1
EMERGENCY GENER
67'-0" A

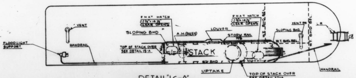
C

B

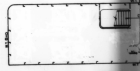
A



DETAIL "17-A"
TOP OF STACK
FOR INFORMATION NOT SHOWN SEE DET 15-D

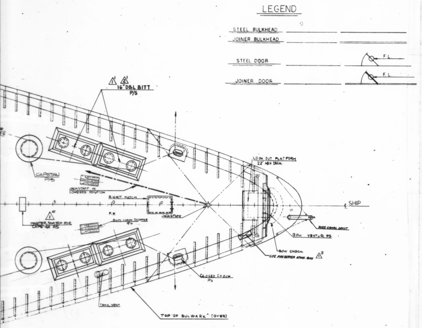


DETAIL "16-A"
TOP OF STACK HOUSE
SLOPES FROM 78'-0" ABV. B.L. @ FR 97 TO 75'-9" ABV. B.L. @ FR 105



DETAIL "14-A
67'-6" FLAT

17 16 15



UPPER DECK

CAMBER & SHEER

SHEER SHAPES FROM 75-0 ABV B AT STEM TO 70-6 ABV B AT FR 51.

GENERAL NOTES

1. FOR ABBREVIATIONS SEE REF № 1.

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-15 (W) REV 5 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: DRAWING REVISED TO SUIT LATEST SCANTLINGS, APPLICABLE STRUCTURAL DWGS. AND CONTRACT ARRGTS.
1		1. RELEASED RESERVATIONS NO. 1&2 2. INDICATED VENT TRUNK @UPPER DECK, FWD OF HSE FRONT P/S. 3. INDICATED LIFE PRESERVER STOWAGE BOX, UPPER DECK @FR K STBD. 4. INDICATED F.O. FILL CONTAINMENTS & TANK VENTS P/S @ FR 45 & @FR 50 UPPER DECK. 5. REVISED STRUCTURE APPROX 35'-0" OFF ℄ @FR 51 UPPER DECK & CABIN DECK TO SUIT STORES CRANE. 6. INDICATED REVISED ARRGT OF RADIO ROOM ON CABIN DECK @ FRS 47-50 (P) TO SUIT RADIO RM DWG. 7. INDICATED FLOODLIGHT SUPPORTS P/S @ FR 50 1/2, BRIDGE DECK, 23'-6" OFF ℄ 8. INDICATED REVISED LIFEBOAT ACCESS PLTF P/S BRIDGE DECK @ FR 48, 26'-0" OFF ℄ 9. INDICATED REVISED EXH. & SUP. A/C SYS BRIDGE DECK, FRS 47-50 STBD. 10. INDICATED RELOCATION OF ANTENNA TRUNK 10" AFT FR 48, BRIDGE DECK, 19'-3" OFF ℄(P) 11. INDICATED RELOCATION OF BROADCAST ANTENNA AND ADDITION OF LIGHTNING ARRESTOR BETWEEN FRS 49 & 50, 24'-6" OFF ℄ TO STBD ON BRIDGE DECK. 12. INDICATED LOCATION OF E.P.I.R.B. BETWEEN FRS 40 & 41 ON PORT BRIDGE WING 39'-3" OFF ℄. 13. INDICATED LOCATION OF LORAN ANTENNA 9" FWD FR 44, 36'-0" OFF ℄ STBD, BRIDGE DECK. 14. INDICATED LOCATION OF LIGHTNING ARRESTOR 2'-6" FWD FR 45 ON HOUSE TOP, STBD. 15. REVISED MASTERSWITCH FOR CAPSTAN CONTROLLER FR 7-8 ℄, UPPER DECK 16. REVISED PILOT HOUSE ARRGT TO SUIT LATEST ELEC. EQUIP ARRGT DWG. ABOVE ITEMS TO SUIT OWNER'S COMMENTS & AS PER DEVELOPMENT.
2	3 4&5 7&8	1. ADDED 16" DBL BITT ON UPPER DECK P/S BET. FRS 1&5 TO SUIT LATEST ARRGTS 2. UPPER DK: ADDED REFRIG IN 1ST ASST ENGR, 2ND ASST ENGR, 3RD ASST ENGR #1, 2, & 3 SR 3. CABIN DK: ADDED REFRIG IN CHIEF MATE, 2ND MATE, 3RD MATE #1 & 2 AND RADIO OFFICER'S SR. ITEM № 1 TO SUIT OWNERS COMMENTS ITEM № 2 & 3 TO SUIT C.O. # 20

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR. SER. NO. [illegible] DATED JUNE 23, 1978	LTR. REF. NO. 7-S-2 DATED JULY 18-78	LTR. SER. NO. H-2429 DATED 27-JULY-78	LTR. DATED JULY 7, 1978	
1	5-23-79 [signature]	F&G LTR. SER. NO. [illegible] DATED JUNE 25, 1979				
2	[initials] 9/29/80	F&G 10-24-80				
3						
4						
5						
6						
7						
8						
9						
10						

ASI DWG NO C7-1000 01-03-15 REV 2

RESERVATIONS

NO	DESCRIPTION
2	~~STORES CRANE PENDING DEVELOPMENT~~
1	~~MOORING ARRGT PENDING DEVELOPMENT~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

REFERENCES

REV	NO	TITLE	DRAWING NO
	8	LIST OF WINDOWS & FIXED LIGHTS	16-22-04
	7	VENT ARRGT FAN RM CABIN DK	38-10-22
	6	LAUNDRIES	35-01-01
	5	BATTERY LKRS	30-01-09
	4	ARRGT & DETS MISC DK LKRS	30-01-08
	3	ARRGT OF ELECT ELECT EQUIP PILOT HSE	24-03-01
	2	MAIN DK FWD	01-03-13
	1	GENERAL ARRGT INNER BOTTOM FWD	C7-1000 01-03-03

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY FMR DATE 5-31-78
CHECKED BY ejl DATE 6-7-78
APVD [signature] 6-14-78
APVD J.J. Murphy 6-14-78 PROJECT MANAGER
APVD [signature] VP/CHIEF ENGINEER

GENERAL ARRG'T UPPER DK.
CABIN DK, BRIDGE DK
AND HOUSE TOP

SIZE H — A S I DWG NO **C7-1000** 01-03-15 — REV 2
SCALE 1/4" = 1'-0"

ASI DWG NO C7-1000 01-03-15 REV 2

DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
Friede & Goldman	
F&G (Y)	
Hopeman	
Sig Scares	
TOTAL	
DATE OF PRINT ISSUE	

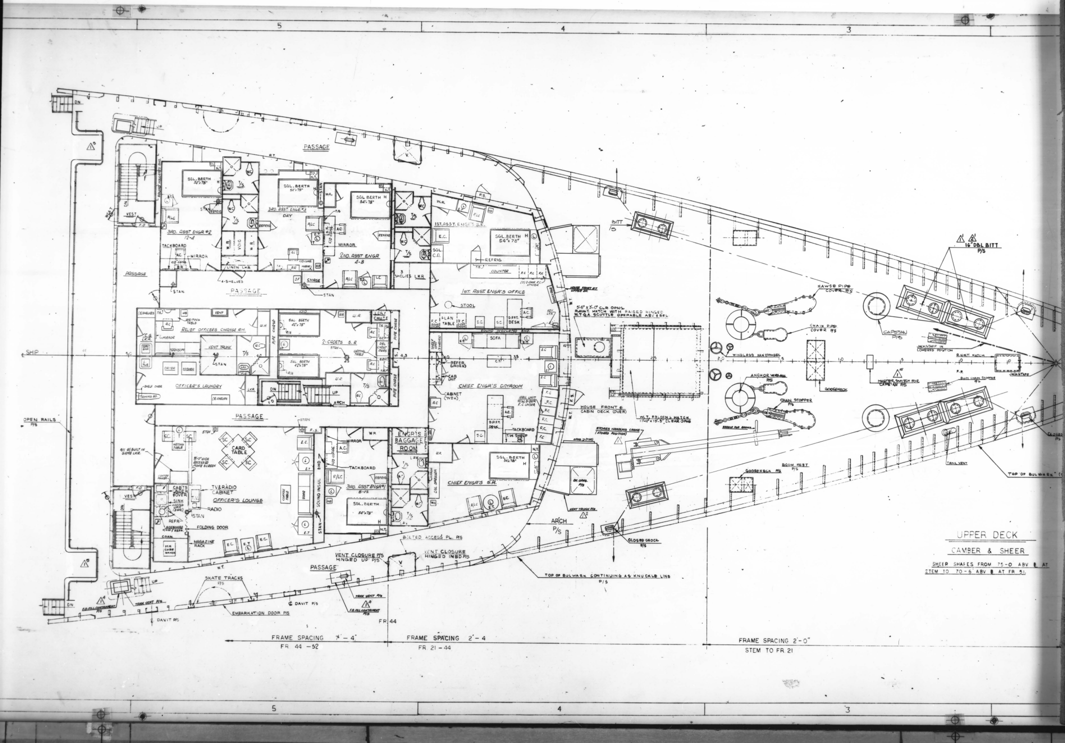
C7-1000 01-03-15

DISTRIBUTION

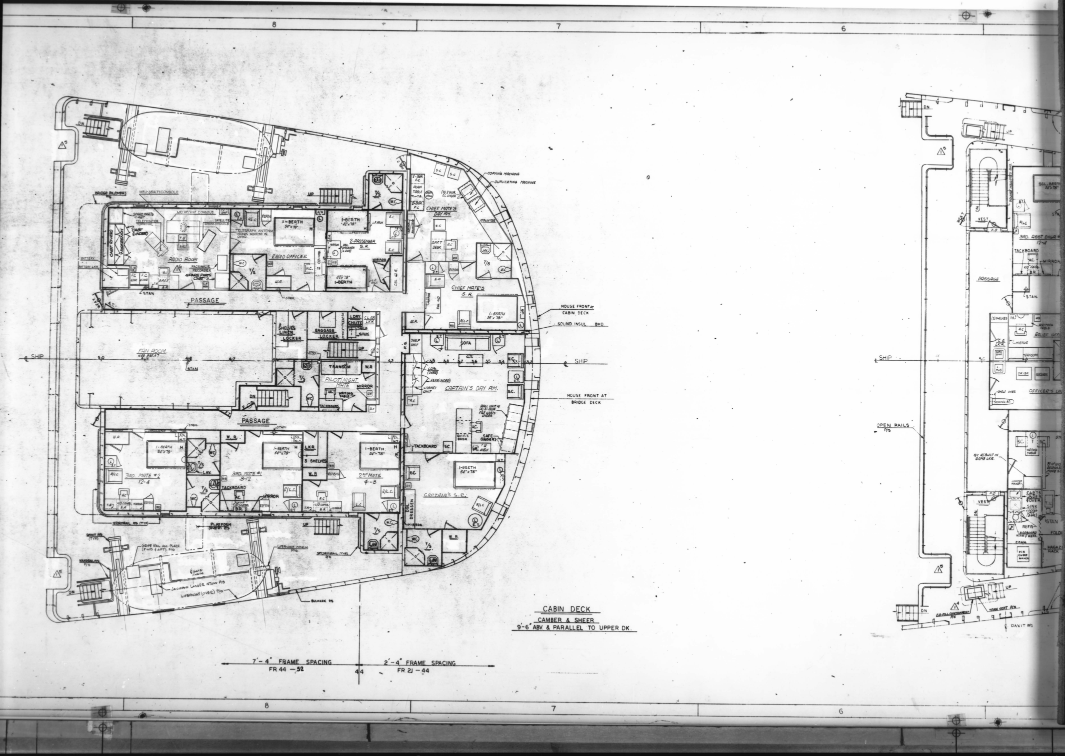
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

C7-1000 01-03-15

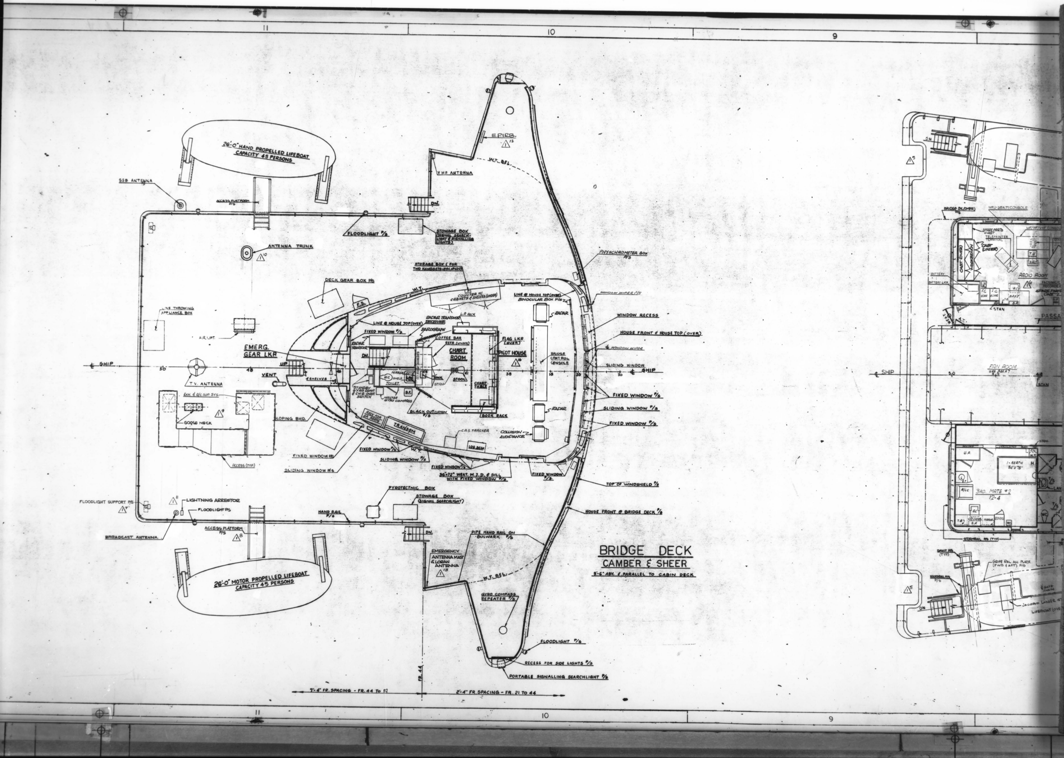
RED. 8X DATE 7-81
MA. NO. H-15 BLDR. NO. 01-03-15
FRAME NO. 1



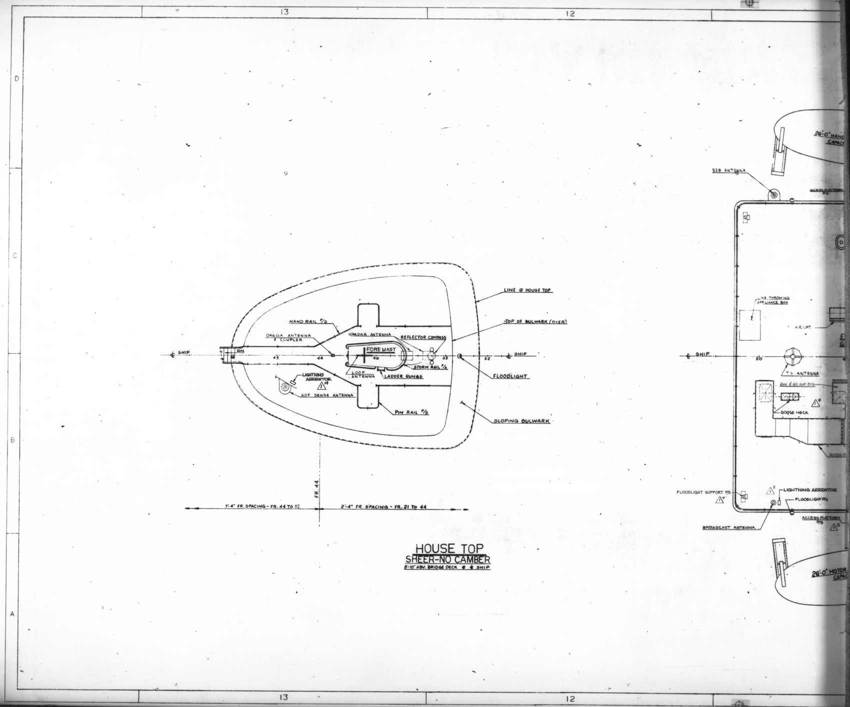
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FRAME NO. 2

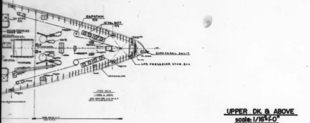


RED. 8X DATE 7-81
MA. NO. H-15 BLDR. NO. 01-03-15
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-15 BLDR. NO. 01-03-15
FRAME NO. 4


13
12
D
C
B
A
HAND RAIL P/S
OMEGA ANTENNA & COUPLER
RADAR ANTENNA
REFLECTOR COMPASS
FORE MAST
LOOP ANTENNA
LADDER RUNGS
STORM RAIL P/S
LIGHTNING ARRESTOR
ADF SENSE ANTENNA
PIN RAIL P/S
LINE @ HOUSE TOP
TOP OF BULWARK (OVER)
FLOODLIGHT
SLOPING BULWARK
℄ SHIP
DN
45
44
40
35
32
FR. 44
7'-4" FR. SPACING - FR. 44 TO 52
2'-4" FR. SPACING - FR. 21 TO 44
HOUSE TOP
SHEER-NO CAMBER
8'-10" ABV. BRIDGE DECK @ ℄ SHIP
SSB ANTENNA
LINE THROWING APPLIANCE BOX
AIR LIFT
50
T.V. ANTENNA
EXH. & A/C SUP. SYS.
GOOSE NECK
FLOODLIGHT SUPPORT P/S
LIGHTNING ARRESTOR
FLOODLIGHT P/S
BROADCAST ANTENNA
ACCESS PLATFORM P/S



UPPER DK. & ABOVE
scale: 1/16"=1'-0"

PLATE 5 OF 14

GENERAL CHARACTERISTICS

ENGTH OVERALL (INCLUDING CRANE OVERHANGS)............893'-4"
ENGTH OVERALL OF HULL (EXCLUDING OVERHANGS)..........845'-4"
ENGTH OF DESIGN WATERLINE (28'-0")...................813'-4"
ENGTH BETWEEN PERPENDICULARS..........................797'-4"
EAM MAX. MOLDED..100'-0"
EPTH TO MAIN DECK AT SIDE MIN. MOLDED.................60'-0"
RAFT FULL LOAD MOLDED (MAX)............................38'-0"
AMBER STRAIGHT FROM 10'-0" OFF CL (MN DK & ABOVE)....1'-0"
HEER UPPER DECK..............................4'-0" IN 174'-0"
ABIN DECK. BRIDGE DECK & PILOTHOUSE TOP ARE PARALLEL TO
PPER DECK. MAIN DECK AND BELOW HAVE NO SHEER
RANSVERSE W.T. BULKHEADS...............................10
EADWEIGHT. DESIGN DRAFT (28'-0").......21532.200 L. TONS
EADWEIGHT. SCANTLING DRAFT (38'-0")....40311.300 L. TONS
ISPLACEMENT S.W. DESIGN DRAFT (28'-0")....38070.8 L. TONS
ISPLACEMENT S.W. SCANTLING DRAFT (38'-0") 56849.9 L. TONS
IGHTSHIP..........................16,538.6 L. TONS

COMPLEMENT

OFFICERS & CREW:
DECK DEPARTMENT........14
ENGINE DEPARTMENT......12
STEWARDS DEPARTMENT.... 5
CADETS................ 2
PASSENGERS............ 2
RADIO OPERATOR........ 1
SPARE................. 1
TECHNICIAN............ 2
TOTAL.............39

CLASSIFICATION A.B.S. EQUIPMENT NUMERAL U37 CLASS A1 AMS

ABBREVIATIONS

ANT......ANTENNA
A.H......ACCESS HOLE
@........AT
ABV......ABOVE
ABS......ABLE BODIED SEAMAN
ASST.....ASSISTANT
BHD......BULKHEAD
BKT......BRACKET
B.L......BASE LINE
BAG......BAGGAGE
CL.......CENTERLINE
C.G......CLEANING GEAR
CLG......CEILING
DBL......DOUBLE
DEPT.....DEPARTMENT
DK.......DECK
DN.......DOWN
D.O......DIESEL OIL
ENG......ENGINE
ENGR.....ENGINEER
EQ.......EQUAL
F.O......FUEL OIL
F.P......FORWARD PERPENDICULAR
FR.......FRAME
F.S......FIRE STATION
FWD......FORWARD
LDRY.......LAUNDRY
LKR........LOCKER
MAINT......MAINTENANCE
M.H........MANHOLE
OFF........OFFICE
OFF'S......OFFICER'S
O.S........ORDINARY SEAMAN
P/S........PORT & STARBOARD
PUR........PURCHASE
Q.A........QUICK ACTING
R.H........RAISED HINGED
REC........RECREATION
RM.........ROOM
R.H.A.T....RAISED HINGED AIR TIGHT
R.H.O.T....RAISED HINGED OIL TIGHT
SHR........SHOWER
STBD.......STARBOARD
S.W........SALTWATER
TYP........TYPICAL
T/S........TOILET & SHOWER
VEST.......VESTIBULE
V.L........VERTICAL LADDER
W.T........WATERTIGHT
W.R........WARDROBE

GENERAL DIMENSIONS, DATA & CAPACITIES

PLATE 2 OF 14

APPROVALS

OWNER	ABS	USCG	USPHS	MARAD
F&G LTR SER. ... DATED SEPT 19, 1978			LTR. SER. ... DATED OCT 6, 1978	LTR. DATED OCT 10, 1978

~~MOORING GROUP RELIEVED, PENDING DEVELOPMENT.~~

NO | DESCRIPTION | RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO C7-1000 — WATERMAN STEAMSHIP CORP — LASH
DRAWN BY E. RUBIO DATE 9-6-78
CHECKED BY DATE 9-7-78
AVONDALE SHIPYARDS, INC P O BOX 50280 NEW ORLEANS, LA 70150
APVD B. J. Griffin 9-7-78
PROJECT MANAGER 9/8/78
APVD VP/CHIEF ENGINEER

BOOKLET OF GENERAL PLANS
KEY PLAN

SIZE H — A S I DWG NO C7-1000 01-03-16 — REV 2
SCALE 1/8"=1'-0" — PLATE 1 OF 14

NO | REFERENCES | DWG NO

GENERAL NOTES

REFERENCES

REV	NO	TITLE	DRAWING NO
	4	TYP SECTIONS SHOWING TANKS CONFIGURATIONS & SHELL EXPAN.	01-03-165
	3	TANK TOP, INNER BOTTOM MIDSHIP & CROSS SECTIONS	01-03-164
	2	MAIN DK, 2ND DK & MISC FLATS	01-03-163
	1	BOOKLET OF GENERAL PLANS - INBOARD & OUTBOARD PROFILES	C7-1000 01-03-162

REVISIONS

REV	ZONE	DESCRIPTION
		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-16 REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: **NOTE: FOR REVISIONS SEE PLATE NO. 1**

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR SER. ... DATED SEPT 19, 1978				
1		F&G LTR ... DATED AUG 15, 1980				
2	10-15-80	F&G 11-11-80				
3						
4						
5						
6						
7						
8						
9						
10						

~~FOR RESERVATIONS SEE PLATE NO. 1~~

NO | DESCRIPTION | RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000** — WATERMAN STEAMSHIP CORP — **LASH**
DRAWN BY E.R DATE 9-6-78
CHECKED BY DATE 9-7-78
AVONDALE SHIPYARDS, INC P O BOX 50280 NEW ORLEANS, LA 70150
APVD B. J. Griffin 9-7-78
PROJECT MANAGER 9/8/78
APVD NOT REQUIRED VP/CHIEF ENGINEER

BOOKLET OF GENERAL PLANS
UPPER DK. & ABV, DATA AND TITLE PLATES

SIZE H — A S I DWG NO C7-1000 01-03-16 — REV 2
SCALE 1/16"=1'-0"
KEY PLAN

DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

C7-1000 01-03-16

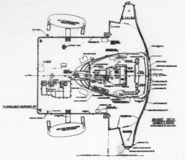
DISTRIBUTION

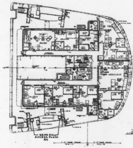
DEPARTMENT	REVISION
PRODUCTION	2 1 0
PROD PLANNING	1 1 1
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	1 1 1
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	1 1 1
HULL	
HULL COMPOSITE	1 1
DESIGN	1 1
OUTFITTING	1 1 1
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	1
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	1
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	2
USCG (YARD)	1 1
USPHS	2
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	2 2 2
MARAD (YARD)	1 1
FRIEDE & GOLDMAN	3 3
F & G (Y)	1 1
WATERMAN	4 4
Sig Solares	1 1
J. Brisnere	3
Hopeman	1 1
TOTAL	
DATE OF PRINT ISSUE	

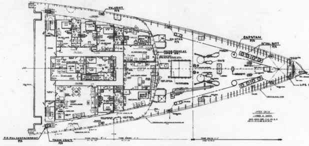
C7-1000 01-03-16

RED. 8X DATE 7-81
MA. NO. H-16 BLDR. NO. 01-03-16
FRAME NO. 1

RED. 8X DATE 7-81
MA. NO. H-16 BLDR. NO. 01-03-16
FRAME NO. 2







............5 L. TONS
............MAX 50'-0"
E NOTE 1......100 H.P.
......APPLETON MACH CO
............510 S. TONS
NOTE 2.....150 H.P. EA
NOTE 2.....150 H.P. EA
......ALLIANCE MACH CO
RANES
WIRE ROPE......200 FT
....1223 LBS @ 50 FPM.
E NOTE 1.......25 H.P.
......APPLETON MACH CO
............30 L TONS
...............PACECO
TO THIS NOTE ARE 440
RIC CO
TO THIS NOTE ARE 240
ELECTRIC CO
TO THIS NOTE ARE 120
ELECTRIC CO
492,950 CU. FT.
608,000 CU. FT.
THE MAIN DECK HATCH
BY STABILITY REQUIRE-

TANK CAPACITIES

PASSIVE STABILIZER TANKS — CAPACITY L TONS 100% FULL

Tank	Capacity
FWD FLUME TANK	691.73
AFT FLUME TANK	987.43
TOTAL	1679.16

FRESH WATER TANKS — CAPACITY L TONS F.W. 100% FULL

Tank	Capacity
DISTILLED WATER TANK-P	242.94
DISTILLED WATER TANK-S	242.94
POTABLE WATER TANKS P/S	302.88
TOTAL	788.76

SALT WATER BALLAST — CAPACITY L TONS S.W. 100% FULL

Tank	Capacity
FOREPEAK S.W. BALL TANK-CL	551.08
NO 1 S.W. BALL TANK CL	1313.85
NO 2 DBL BOTTOM S.W. BALL TANK P/S	1384.36
NO 3 DBL BOTTOM S.W. BALL TANK P/S	991.36
NO 4 DBL BOTTOM S.W. BALL TANK-P/S	1353.66
NO 7 DBL BOTTOM S.W. BALL TANK-S	1714.71
NO 7 DBL BOTTOM S.W. BALL TANK-P	1307.47
FWD S.W. BALL TANK-CL	869.48
AFT S.W. BALL TANK-P/S	1535.98
TOTAL	11001.95

BALLAST TANKS — CAPACITY L TONS 100% FULL

Tank	Capacity
NO 2 WING TANKS P/S	2678.44
NO 2A WING TANKS P/S	3176.46
NO 4 WING TANKS P/S	2841.70
TOTAL	8696.82

FUEL OIL — CAPACITY L TONS 100% FULL

Tank	Capacity
F.O. STORAGE TANK P/S	2029.20
NO 3 WING F.O. TANK-P	1424.49
NO 3 WING F.O. TANK-S	1424.49
NO 6 WING F.O. TANK-P	1322.92
NO 6 WING F.O. TANK-S	1383.19
TOTAL	7584.29

DIESEL OIL

Tank	Capacity
D.O. TANK P/S	114.56

LUBE OIL — CAPACITY L TONS 100% FULL

Tank	Capacity
L.O. GRAVITY TANK-S	15.10
L.O. SETTLING TANK-P	20.62
L.O. STORAGE-P	29.01
L.O. STORAGE-P (DIESEL GENERATOR)	4.30
L.O. SUMP-PCL	19.16
TOTAL	88.19

CARGO DATA

HOLD	SPACE	FRAME	NO	LIGHTERS GRAIN CAP	LIGHTERS BALE CAP	CONTAINERS NO.	CONTAINERS BALE CAP	ALT. CONTAINERS NO.	ALT. CONTAINERS BALE CAP.
1A	BELOW DECK	52-55					22,050		
1A	ON HATCH COVER	52-55					33,075		
1B	BELOW DECK	55-58					36,750		
1B	ON HATCH COVER	55-58					33,075		
1C	BELOW DECK	58-61	4	80,400	78,400				
1C	ON HATCH COVER	58-61	2	40,200	39,200				44,100
2A	BELOW DECK	61-64	4	80,400	78,400				
2A	ON HATCH COVER	61-64	2	40,200	39,200				36,750
2B	BELOW DECK	64-67	4	80,400	78,400				
2B	ON HATCH COVER	64-67	2	40,200	39,200				36,750
2C	BELOW DECK	67-70	4	80,400	78,400				
2C	ON HATCH COVER	67-70	2	40,200	39,200				36,750
3A	BELOW HATCH COVER	70-73	4	80,400	78,400				
3A	ABOVE HATCH COVER	70-73	2	40,200	39,200				33,075
3B	BELOW HATCH COVER	73-76	4	80,400	78,400				
3B	ABOVE HATCH COVER	73-76	2	40,200	39,200				33,075
4A	BELOW DECK	76-79	4	80,400	78,400				
4A	ON HATCH COVER	76-79	2	40,200	39,200				36,750
4B	BELOW DECK	79-82	4	80,400	78,400				
4B	ON HATCH COVER	79-82	2	40,200	39,200				36,750
4C	BELOW DECK	82-85	4	80,400	78,400				
4C	ON HATCH COVER	82-85	2	40,200	39,200				36,750
5A	BELOW DECK	90-95	2	40,200	39,200				
5A	ON HATCH COVER	90-95	2	40,200	39,200				44,100
6A	BELOW DECK	95-98	3	60,300	58,800				
6A	ON HATCH COVER	95-98	2	40,200	39,200				33,075
6B	BELOW DECK	98-101	3	60,300	58,800				
6B	ON HATCH COVER	98-101	2	40,200	39,200				33,075
7A	BELOW DECK	101-111	2	40,200	39,200				
7A	ON HATCH COVER	101-111	2	40,200	39,200				33,075
7B	BELOW DECK	111-121	2	40,200	39,200				
7B	ON HATCH COVER	111-121	2	40,200	39,200				33,075
ENG. RM	ON MN DK @ CL	85-90	2	40,200	39,200				44,100
ST. GR. RM	ON MN DK @ CL	121-132	2	40,200	39,200				
	TOTALS CU. FT.		80	1,608,000	1,568,000	VAR	124,950	VAR	551,250

LIFEBOATS AND DAVITS

1-LIFEBOAT-26'-0" X 9'-0" X 3'-10" PLASTIC...DIESEL POWERED...45 PERSONS
1-LIFEBOAT-26'-0" X 9'-0" X 3'-10" PLASTIC...HAND POWERED.....45 PERSONS
2-PAIR...LIFEBOAT DAVITS..............................GRAVITY TYPE
MFG'R....MARINE SAFETY EQUIPMENT CORP.

STEERING GEAR

1-ELECTRIC HYDRAULIC....ROTARY VANE
2-MOTORS............SEE NOTE NO 1...................75 H.P. EA.
MFG'R....AVONDALE SHIPYARDS, INC.

REFRIGERATION PLANT

AIR CONDITIONING
2-PACKAGE REFR UNITS......38°F SUCT TEMP.............105°F COND. TEMP
45 TONS EA.
MOTOR................SEE NOTE NO 1..........................60 H.P.
MFG'R....CARRIER...TRANSICOLD COMPANY
8-SHIP'S REFRIGERATED STORES CONTAINERIZED
(6) STORES REFR & (2) DRY STORES CONTAINERS WITH AIR COOLED HERMETICALLY SEALED PACKAGE UNITS....8 FT X 8 FT X 10 FT LONG
REFR CAPACITY...3 TONS
MFG'R....YORK CORP.

MOORING HAWSERS & HEAVING LINES

4-CONSTANT TENSION MOORING WINCH LINES 1 1/4" DIA I.P.S. WIRE ROPE 6 X 37 W/1 W.R.C. (GALV) WITH 8 FT LOOP ONE END.
MIN BREAKING STRENGTH.................................150,000 LBS.
LG FROM PULL OF LOOP TO PULL TO OTHER END.................618 FT. EA.
10-HAWSERS 8" CIRC POLYPROPYLENE DACRON EIGHT STRAND PLAITED NON-HOCKLING TYPE.
BREAKING STRENGTH......................................90,000 LBS.
LG FROM PULL OF LOOP TO WHIP END...........100 FATHOMS EA.
8-HEAVING LINES 1 1/2" CIRC NYLON ROPE W/LEATHER COVERED WEIGHT ON ONE END & OTHER END WHIPPED,
LG FROM WEIGHT TO END OF ROPE..........25 FATHOMS EA.
*QUANTITY FOR ONE SHIP
MFG'R.... BROEHL, INC.

POWER PLANT

1-PROPULSION UNIT-CROSS COMPOUND TURBINE REDUCTION GEAR & CONDENSER
SPEED IN KNOTS.... @38'-0" DRAFT 19.1.........@28'-0" DRAFT 22
SHAFT HORSEPOWER............................A.B.S. MAX. 32000
MFG'R TURBINE & GEAR............DE LAVAL TURBINE, INC.
CONDENSER.................AVONDALE SHIPYARD, INC.

PROPELLER

1-4 BLADES...RIGHT HAND.....23 FT DIA.....PITCH @ 07 RAD. 327.89 IN
R.P.M...................................NORMAL 94 MAX. 105
MFG'R.........................AVONDALE SHIPYARD, INC.

GENERATING PLANT

1-MAIN TURBO GENERATOR
CAPACITY, KW...2000
CAPACITY, KVA..2500
VOLTS, AC...450
PHASE & CYCLES...3/60
POWER FACTOR..0.8
MFG'R.....................DE LAVAL TURBINE, INC.

1-STANDBY DIESEL GENERATOR
DIESEL ENGINE
HORSEPOWER RATING..3000
GENERATOR
CAPACITY, KW...2000
CAPACITY, KVA..2500
VOLTS AC..450
PHASE & CYCLES...3/60
POWER FACTOR..0.8
MFG'R ALCO POWER INC

1-EMERGENCY DIESEL GENERATOR
DIESEL ENGINE
HORSEPOWER RATING (APPROX)..................................520
GENERATOR
CAPACITY, KW..375
CAPACITY, KVA...479
VOLTS, AC...450
PHASE & CYCLES...3/60
POWER FACTOR..0.8
MFG'R DETROIT DIESEL

GENERAL CHARACTERISTICS

LENGTH OVERALL (INCLUDING CRANE OVERHANGS)............893'-4"
LENGTH OVERALL OF HULL (EXCLUDING OVERHANGS)..........845'-4"
LENGTH OF DESIGN WATERLINE (28'-0")...................813'-4"
LENGTH BETWEEN PERPENDICULARS.........................797'-4"
BEAM MAX. MOLDED......................................100'-0"
DEPTH TO MAIN DECK AT SIDE MIN. MOLDED................60'-0"
DRAFT FULL LOAD MOLDED (MAX)..........................38'-0"
CAMBER STRAIGHT FROM 10'-0" OFF CL (MN DK & ABOVE)....1'-0"
SHEER UPPER DECK.......................4'-0" IN 174'-0"
CABIN DECK, BRIDGE DECK & PILOTHOUSE TOP ARE PARALLEL TO UPPER DECK. MAIN DECK AND BELOW HAVE NO SHEER
TRANSVERSE W.T. BULKHEADS.................................10
DEADWEIGHT, DESIGN DRAFT (28'-0")......21532.200 L. TONS
DEADWEIGHT, SCANTLING DRAFT (38'-0")....40311.300 L. TONS
DISPLACEMENT S.W. DESIGN DRAFT (28'-0")....38070.8 L. TONS
DISPLACEMENT S.W. SCANTLING DRAFT (38'-0") 56849.9 L. TONS
LIGHTSHIP.......................16,538.6 L. TONS

COMPLEMENT

OFFICERS & CREW:
DECK DEPARTMENT........14
ENGINE DEPARTMENT......12
STEWARDS DEPARTMENT.... 5
CADETS................. 2
PASSENGERS............. 2
RADIO OPERATOR......... 1
SPARE.................. 1
TECHNICIAN............. 2
TOTAL...........39

CLASSIFICATION A.B.S. EQUIPMENT NUMERAL U37
CLASS ✠ A1Ⓔ ✠ AMS

ABBREV

ANT......ANTENNA
A.H......ACCESS HOLE
@........AT
ABV......ABOVE
ABS......ABLE BODIED SEAMAN
ASST.....ASSISTANT
BHD......BULKHEAD
BKT......BRACKET
B.L......BASE LINE
BAG......BAGGAGE
CL.......CENTERLINE
C.G......CLEANING GEAR
CLG......CEILING
DBL......DOUBLE
DEPT.....DEPARTMENT
DK.......DECK
DN.......DOWN
D.O......DIESEL OIL
ENG......ENGINE
ENGR.....ENGINEER
EQ.......EQUAL
F.O......FUEL OIL
F.P......FORWARD PERPENDICULAR
FR.......FRAME
F.S......FIRE STATION
FWD......FORWARD

GENERAL DIM

REVISION

...SION
...RIPTION

...S 33-39 TO SUIT STRUCTURAL CHANGES
M.H.'S (OVER) APPROX 34'-0" OFF ℄ P/S
ADDED LABEL OF CAPACITY TO,
... TANKS.
...T CAPACITY FIGURES TO CORRECT
...NCHOR WINDLASSES & C.T.
...CAPACITIES AS BALE & ACTUALLY
TO SUIT UPDATED CARGO DATA.
EMERGENCY DIESEL GEN.
...LASH LIGHTER CRANE FROM 510 L
...PLATFORMS & CORRECTED LOCATIONS
CABIN DK.
...DICATOR & SAT. NAV. ANTENNA
UPPER DK P/S BET FRS 1 & 5 TO SUIT
...FRIG IN 1ST ASST ENGR, 2ND ASST
... #1, 2, & 3 SR
...FRIG IN CHIEF MATE, 2ND MATE,
...DIO OFFICER'S SR.
... LIFTBEAM ASS'Y IN STOWED
...RNBUCKLE BOX ON STB ABOUT
...NATIONS ON MN DK & INBD
...METER WELL 3'-8" AFT FR 58
... LIFT ASSY STOWAGE
...ED NDF TROLLEY ASSY

REVISION

REV	PLATE	ITEM	DESCRIPTION
	6	42	REVISED LOCATION HYDRAULIC CRANE & POWER PLANT @ APPROX FR 98 P/S
	6	43	ADDED PANAMA CANAL PILOT SHELTER @ FR 106 P/S
	6	44	ADDED SEARCHLIGHT STAN ON PLTF. 69'-6" ABV BL BET FR 138 (13?)
	6	45	ADDED AFT SEARCHLIGHT STAN & REVISED HANDRAIL @ TRAN FR 132 ℄
	7	46	INDICATED F.W.T.B.P. MAN HOLE BET FR. 11 & 12
	7	47	REVISED STRUCTURE OF VOIDS TO P/S & AFT OF CHAIN LOCKER & INDICATED W.T. ACCESS TRUNK FR 19-21, & TO 4'-0" OFF ℄
	7	48	INDICATED DK CUTS & VENT TRUNKS FR 29-31
	7	49	REVISED BHD @ FR. 44 & REVISED ARRGT OF CREW'S RECREATION RM, STWD STORES & CLEAN LINEN RM TO SUIT
	7	50	INDICATED FREEZER IN GALLEY FR 48 @ ℄
1	7	51	ADDED VERTICAL LDR'S AND M.H. (OVER) IN WALKWAYS AND BOX GDR'S P/S @ FRS 55, 56, 58, 61, 64, 67, 70, 73, 76, 79, & 82.
	7	52	DELETED M.H.'S AFT FR'S 73 & 95 IN BHD 40'-0" OFF ℄ P/S
	7	53	ADDED SCUTTLE (OVER) & VERTICAL LDR IN ENGINE RM. BET FR'S 87-88 APPROX 27'-6" OFF ℄ PORT.
	7	54	ADDED FIREMAN'S OUTFIT STOWAGE BET. FRS 89-90 APPROX 48'-0" OFF ℄ STBD
	7	55	DELETED INCLINED LDR'S FRS 115-117, 32'-0" OFF ℄ P/S & ADDED HINGED PLATE & VERTICAL LDR FR 118, 119 35'-0" OFF ℄ P/S
	8	56	IN FWD STORES FLAT ADDED ACCESS FOR MACHY REMOVAL FROM BOW THRUSTER RM @ FR 35, & ADDED VENT TRUNKS P/S @ FR 30 & 35
	8	57	DELETED F.O. OVERFLOW TK AFT FR 44 @ ℄ & ADDED VERTICAL LDR'S 7'-0" OFF ℄ P @ FR 44
	8	58	REVISED BOW THRUSTER MACHY RM TO INCLUDE MOTOR, MOTOR CONTROLLER, HYD POWER UNIT, DK CUT WITH ACCESS LDR'S & B.P. W.T. M.H.'S
	8	59	ADDED NAT'L DEF. WT AND "C" BEAM AND LCM-8 BEAM @ 34'-6" LEVEL NO. 7 HOLD
	9	60	ADDED VERTICAL LDR AFT FR 44 PORT
	9	61	RELOCATED DRAINWELL P/S FR 67 TO 70 AND FR 73
	9	62	ADDED F.W.T.B.P.M.H.R. APPROX 33'-6" OFF ℄ P/S BET FR 71 & 84
	9	63	ADDED DRAINWELLS APPROX 18'-6" OFF ℄ @ APPROX 2'-6" AFT FR 85 P/S

REVISION

REV	PLATE	ITEM	DESCRIPTION
	4	22	CORRECTED LOCATION OF CONTAINER CRANE
	4	23	DELETED INCLINED LDRS (P/S) FR 115-117 & ADDED VERTICAL LDR @ FR 118 & L.C.M. BEAM
	4	24	ADDED R.H.W.T. HATCH BET FRS 28-31 UPPER DK 18" OFF ℄ (PORT)
	5	25	ADDED SUEZ CANAL DAVIT, ON FOCSLE UPPER DK
	5	26	INDICATED LIFE PRESERVER STOWAGE BOX UPPER DK. @ FR K (STBD)
	5	27	INDICATED STORES HANDLING CRANE UPPER DK BET FR 14 & 29 (STBD)
	5	28	INDICATED VENT TRUNK @ UPPER DK, FWD OF HSE FRONT P/S.
1	5	29	REVISED MASTER SWITCH FOR CAPSTAN CONTROLLER FR 7-8 ℄ UPPER DK.
	5	30	INDICATED F.O. FILL CONTAINMENTS & TANK VENTS P/S @ FR 45 & @ FR 50 UPPER DK.
	5	31	INDICATED REVISED EXH. & SUP A/C SYS BRIDGE DK, FRS 47-50 (STBD)
	5	32	INDICATED RELOCATION OF ANTENNA TRUNK 10" AFT FR 48, BRIDGE DK 19'-3" OFF ℄ (PORT)
	5	33	INDICATED LOCATION OF E.P.I.R.B. BET FRS 40 & 41 ON PORT BRIDGE WING 39'-3" OFF ℄
	6	34	REVISED ARRGT BOSN STORES FWD FR 6-21 TO INCLUDE STRUCTURAL CHANGES & ANCHOR HANDLING MACHINERY.
	6	35	ADDED VENT TRUNKS @ FR 30 APPROX 22'-0" OFF ℄ (P/S)
	6	36	REVISED W.T. PONTOON HATCH COVERS THROUGH-OUT TO SUIT DEV. & REVISED LOCATION OF MANHOLES TO SUIT
	6	37	REVISED LOCATION OF DK STOWAGE LKRS TO FR 62 P/S & REVISED LIGHTER CRANE TIE DOWN @ FR 67 P/S
	6	38	ADDED TURNBUCKLE BOXES APPROX @ FR 60-61 & FR 65-66
	6	39	INDICATED CRANE LEG TIE DOWNS APPROX FR 55 & FRS 59-60, 40'-0" OFF ℄ P/S
	6	40	ADDED PENDANT RACKS @ APPROX FRS 72, 93 & 108 P/S ANTI-RACK BAR @ FR 78 P/S & TURNBUCKLE BOXES APPROX 40'-0" OFF ℄
	6	41	INDICATED CONTAINER SUPPORTS & REVISED LOCATION OF TOPS OF VENTS ABOVE MACHY CASING FRS 85-90 & REVISED R.H.W.Q.A.

REVISION

REV	PLATE	ITEM	DESCRIPTION
	1	1	RELEASED RESERVATION NO. 1
	1	2	ADDED APPROVALS BLOCK
	2	3	"GEN CHARACTERISTICS" ADDED TONNAGE FIGURES TO DEADWEIGHT, 28'-0" AND 38'-0", AND DISPLACEMENT 28'-0" AND 38'-0", AND LIGHTSHIP.
	2	4	"POWER PLANT" CHANGE 28'-0" DRAFT TO 38'-0" DRAFT
	2	5	"MOORING HAWSERS & HEAVING LINES" DELETE 628' EA & AND 150' EA.
1	2	6	"CARGO DATA" ADDED COMMAS TO NUMBERS IN GRAIN & BALE COLUMNS, ADDED CARGO DATA FOR CONTAINERS
	2	7	"CONTAINER CRANE" CAPACITY REVISED FROM 220 TONS TO 30 L TONS
	2	8	"ANCHOR CHAIN" VENDOR "BALDT" CORRECTED
	3	9	ADDED SUEZ CANAL DAVIT, ON FOCSLE, UPPER DK
	3	10	ADDED MASTHEAD, UPPER TOWING & LOWER TOWING LIGHTS ON JACKSTAFF, FOCSLE
	3	11	ADDED STOWAGE HANDLING CRANE
		12	ADDED N.U.C. LIGHTMAST ON CONTAINER CRANE (PORT)
	3	13	REVISED LOCATION OF CONTAINER CRANE, AND LIGHTER HANDLING CRANE, IN STOWED POSITION
	3	14	REVISED LOCATION JACOBS LDR & POWERED PILOTS LDR. FR 65-66 P/S & ADDED FLOODLIGHTS TO SUIT
	4	15	ADDED VENTS & STRUCTURE @ TOP OF MACHY CASING FR 85-90
	3	16	ADDED PANAMA CANAL PILOTS SHELTER P/S FR 106
	3	17	ADDED AFT TOWING LIGHT & STERN LIGHTS @ PLATF 69'-6" ABL (PORT)
	4	18	INDICATED OVERALL LENGTH BELOW FOREPEAK & STERN
	4	19	REVISED CHAIN LOCKER TO SUIT DEV.
	4	20	DELETED INDICATION OF FWD FUEL OIL OVERFLOW TK FR 44-45 36'-0" LEVEL
	4	21	REVISED BOW THRUSTER MACHY RM. & BOW THRUSTER RM & ADDED MACHY & ACCESS LDRS.

INDEX OF PLANS

PLATE NO	PLAN
1	TITLE PAGE
2	GENERAL DIMENSIONS, DATA & CAPACITIES
3	OUTBOARD PROFILE
4	INBOARD PROFILE
5	UPPER DK. & ABV.
6	MAIN DK.
7	SECOND DK.
8	MISC. FLATS
9	TANK TOP
10	INNER BOTTOM
11	MIDSHIP & CROSS SECTIONS
12	SHELL EXPANSION FWD.
13	SHELL EXPANSION AFT
14	TYP. SECTIONS SHOWING TANK CONFIGURATIONS

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR SER. NO. L-112/1773 DATED SEPT 19, 1978			LTR. SER. NO. AF 63-117 DATED OCT 6, 1978	LTR. DATED OCT 10, 1978
1		F&G LTR SER. NO. L-112/3071 DATED AUG. 15, 1980				
2						
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10						

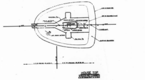
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	3		
	2		
	1		

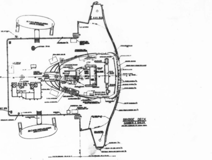
REV 1
ASI DWG NO C7-1000 01-03-16

M A HULL NO	A S I HULL NO
336	2307
337	2308

A S I JOB NO **C7-1000**
DRAWN BY E. RUBIO DATE 9-6-78
CHECKED BY [illegible] DATE 9-7-78
APVD B.J. Griffin Sr. 9-7-78
APVD J.J. [illegible] 9/8/78 PROJECT MANAGER
APVD VP/CHIEF ENGINEER
SIZE H

7 | 6





DECK MACHINERY AND CARGO HANDLING GEAR

2-ANCHOR WINDLASS, VERTICAL
ELECTRIC-HYDRAULIC........CHAIN SIZE STUD LINK 3 1/16"
MOTOR..125 H.P.
MFG'R ....BROEHL, INC.

2-ANCHORS
LIGHT WEIGHT SNUG STOWING 22,470 LBS EA
1-SPARE ANCHOR
LIGHT WEIGHT SNUG STOWING 19,110 LBS

ANCHOR CHAIN
3 1/16" STUD LINK (HIGH STRENGTH)..........345 FATHOMS
MFG'R ANCHORS & CHAIN BALDT ANCHOR, CHAIN & FORGE DIVISION

4-CAPSTANS, VERTICAL ELECTRIC
CAPSTAN HEAD.........................30" DIA X 24" HIGH
LINE PULL....................30,000 LBS (MAX) @ 35 FPM
MOTOR...............SEE NOTE 1..............50/50 H.P.
MFG'R....................................BROEHL, INC

2-LIFEBOAT WINCHES, DOUBLE DRUM, ELECTRIC
WORKING LOAD W/2 PART FALLS................15,000 LBS
MOTOR...15 H.P.
MFG'R....................................BROEHL, INC

2-ACCOMMODATION LADDER WINCHES, ELECTRIC
CAPACITY.......7/16" DIA WIRE ROPE...200 FT
RATED LINE PULL 660 LBS @ 60 FPM
MOTOR..........SEE NOTE 1...........2 H.P.
MFG'R..............................BROEHL

4-CONSTANT TENSION MOORING WINCHES, ELECTRIC (WITH GYPSY HEADS)
CAPACITY......1 1/4" DIA WIRE ROPE...600 FT
MOTOR..........SEE NOTE 2..........50 H.P.
MFG'R................BROEHL, INC.

1-STORES CRANE
CAPACITY @ 45 FT RADIUS..................5 L. TONS
RADIUS....................................MAX 50'-0"
1-CARGO WINCH MOTOR.......SEE NOTE 1......100 H.P.
MFG'R.........................APPLETON MACH CO

1-LASH LIGHTER CRANE
CAPACITY...............................510 S. TONS
4-GANTRY MOTORS.........SEE NOTE 2.....150 H.P. EA
4-HOIST MOTORS..........SEE NOTE 2.....150 H.P. EA
MFG'R.........................ALLIANCE MACH CO

2-MACHINERY STORES HYDRAULIC CRANES
CAPACITY...6000 LB..3/8" DIA WIRE ROPE......200 FT
RATED LINE PULL................1223 LBS @ 50 FPM.
MOTOR.....................SEE NOTE 1.......25 H.P.
MFG'R.........................APPLETON MACH CO

1-CONTAINER CRANE
CAPACITY...................................30 L TONS
MFG'R......................................PACECO

NOTES
1. ELECTRIC MOTORS REFERENCED TO THIS NOTE ARE 440 VOLT, 3 PHASE, 60 HERTZ
MFG'R.....RELIANCE ELECTRIC CO
2. ELECTRIC MOTORS REFERENCED TO THIS NOTE ARE 240 VOLT D.C. MFG'R..RELIANCE ELECTRIC CO
3. ELECTRIC MOTORS REFERENCED TO THIS NOTE ARE 120 VOLT D.C. MFG'R..RELIANCE ELECTRIC CO

TOTAL CAPACITIES AS-BALE - 1,692,950 CU. FT.
ACTUALLY CONFIGURED-GRAIN - 1,608,000 CU.FT.
NOTE: LIGHTER DISTRIBUTION ON THE MAIN DECK HATCH COVER SHALL BE GOVERNED BY STABILITY REQUIREMENTS.

TANK CAPACITIES

PASSIVE STABILIZER TANKS — CAPACITY L TONS 100% FULL
FWD FLUME TANK..........................691.73
AFT FLUME TANK..........................987.43
TOTAL..................1679.16

FRESH WATER TANKS — CAPACITY L TONS F.W. 100% FULL
DISTILLED WATER TANK-P.................242.94
DISTILLED WATER TANK-S.................242.94
POTABLE WATER TANKS P/S................302.88
TOTAL..................788.76

SALT WATER BALLAST — CAPACITY L TONS S.W. 100% FULL
FOREPEAK S.W. BALL TANK-CL..............531.08
NO 1 S.W. BALL TANK CL..................1313.85
NO 2 DBL BOTTOM S.W. BALL TANK P/S......1584.36
NO 3 DBL BOTTOM S.W. BALL TANK P/S......921.36
NO 4 DBL BOTTOM S.W. BALL TANK-P/S......1353.66
NO 7 DBL BOTTOM S.W. BALL TANK-S........1714.71
NO 7 DBL BOTTOM S.W. BALL TANK-P........1307.47
FWD S.W. BALL TANK-CL...................869.48
AFT S.W. BALL TANK-P/S..................1535.98
TOTAL.............11001.95

BALLAST TANKS — CAPACITY L TONS 100% FULL
NO 2 WING TANKS P/S.....................2678.66
NO 2A WING TANKS P/S....................3176.46
NO 4 WING TANKS P/S.....................2841.70
TOTAL..............8696.82

FUEL OIL — CAPACITY L TONS 100% FULL
F.O. STORAGE TANK P/S...................2029.20
NO 3 WING F.O. TANK-P...................1424.49
NO 3 WING F.O. TANK-S...................1424.49
NO 6 WING F.O. TANK-P...................1322.92
NO 6 WING F.O. TANK-S...................1383.19
TOTAL..............7584.29

DIESEL OIL
D.O. TANK P/S...........................114.56

LUBE OIL — CAPACITY L TONS 100% FULL
L.O. GRAVITY TANK-S.....................15.10
L.O. SETTLING TANK-P....................20.62
L.O. STORAGE-P..........................29.01
L.O. STORAGE-P (DIESEL GENERATOR).......4.30
L.O. SUMP-PCL...........................19.16
TOTAL..............88.19

HOLD	SPACE	FRAME	NO	LIG[HTER] GRAIN CAP[ACITY]
1A	BELOW DECK	52-55		
1A	ON HATCH COVER	52-55		
1B	BELOW DECK	55-58		
1B	ON HATCH COVER	55-58		
1C	BELOW DECK	58-61	4	80,400
1C	ON HATCH COVER	58-61	2	40,200
2A	BELOW DECK	61-64	4	80,400
2A	ON HATCH COVER	61-64	2	40,200
2B	BELOW DECK	64-67	4	80,400
2B	ON HATCH COVER	64-67	2	40,200
2C	BELOW DECK	67-70	4	80,400
2C	ON HATCH COVER	67-70	2	40,200
3A	BELOW HATCH COVER	70-73	4	80,400
3A	ABOVE HATCH COVER	70-73	2	40,200
3B	BELOW HATCH COVER	73-76	4	80,400
3B	ABOVE HATCH COVER	73-76	2	40,200
4A	BELOW DECK	76-79	4	80,400
4A	ON HATCH COVER	76-79	2	40,200
4B	BELOW DECK	79-82	4	80,400
4B	ON HATCH COVER	79-82	2	40,200
4C	BELOW DECK	82-85	4	80,400
4C	ON HATCH COVER	82-85	2	40,200
5A	BELOW DECK	90-95	2	40,200
5A	ON HATCH COVER	90-95	2	40,200
6A	BELOW DECK	95-98	3	60,300
6A	ON HATCH COVER	95-98	2	40,200
6B	BELOW DECK	98-101	3	60,300
6B	ON HATCH COVER	98-101	2	40,200
7A	BELOW DECK	101-111	2	40,200
7A	ON HATCH COVER	101-111	2	40,200
7B	BELOW DECK	111-121	2	40,200
7B	ON HATCH COVER	111-121	2	40,200
ENG.RM.	ON MN DK @ CL	85-90	2	40,200
ST. GR. RM.	ON MN DK @ CL	121-132	2	40,200
	TOTALS CU.FT.		80	1,608,000

REVISION

REV	PLATE	ITEM	DESCRIPTION
2	6	1	CHANGED ROOM DESIGNATIONS TO AGREE WITH C.O. #24
	7	2	INDICATED CAPSTAN MOTOR AND GEAR UNIT AT FR 126-127 P/S
	8	3	36'-0" FLAT FR 52-53 & 21'6" FLAT FR 55-56, DELETED WORD "UNUSED" FROM "LIGHTER SUPPORT CASTINGS"
	12	4	RELOCATE TRANSDUCER FROM FR 58 TO BETWEEN FR 11&12 AND ADDED ONE BETWEEN FR 3&4

REVISION

REV	PLATE	ITEM	DESCRIPTION
1	10	64	REVISED FLOORS FR'S 33-39 TO SUIT STRUCTURAL CHANGES
	10	65	ADDED VERTICAL LDR'S & M.H.'S (OVER) APPROX 34'-0" OFF ℄ P/S BET FR'S 62 & 85
	3	66	"TANK CAPACITES" ADDED LABEL OF CAPACITY TO, PASSIVE STABILIZER TANKS.
	3	67	REVISED ALL WEIGHT CAPACITY FIGURES TO CORRECT
	2	68	ADDED MFG'R. FOR ANCHOR WINDLASSES & C.T. MOORING WINCHES
	2	69	CORRECTED TOTAL CAPACITIES AS BALE & ACTUALLY CONFIGURED GRAIN TO SUIT UP DATED CARGO DATA.
	2	70	CORRECTED MFG'R OF EMERGENCY DIESEL GEN.
	2	71	CORRECTED CAP. OF LASH LIGHTER CRANE FROM 510 L TONS TO 510 S. TONS.
	5	72	ADDED GRIPE ACCESS PLATFORMS & CORRECTED LOCATIONS OF JACOBS LDRS ON CABIN DK.
	14	73	ADDED WIND SPEED INDICATOR & SAT. NAV. ANTENNA
	8	74	ADDED 16" DBL BITT ON UPPER DK P/S B'T FRS 1 & 5 TO SUIT LATEST ARRGTS
	14	75	UPPER DK: ADDED REFRIG IN 1ST ASST ENGR, 2ND ASST ENGR, 3RD ASST ENGR #1, 2, & 3 SR
	14	76	CABIN DK: ADDED REFRIG IN CHIEF MATE, 2ND MATE, 3RD MATE #1 & 2 AND RADIO OFFICER'S SR.
	6	77	ADDED TELESCOPING LIFTBEAM ASS'Y IN STOWED POS. AND REMOVED TURNBUCKLE BOX ON STB ABOUT FR 61 MAIN DECK
	4,6	78	ADDED CELL DESIGNATIONS ON MN DK & INBD PROFILE.
	9,10	79	DELETED FATHOMETER WELL 3'-8" AFT FR 58.
	4	80	ADDED CANTILEVER LIFT ASSY STOWAGE
	8	81	AT 21'-6" FLAT, ADDED NDF TROLLEY ASSY

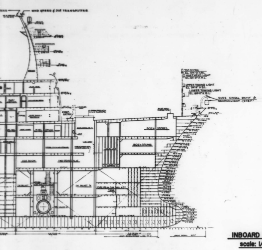
REVISION

REV	PLATE	ITEM	DESCRIPTION
1	6	42	REVISED LOCATION HYDRAULIC CRANE & POWER PLANT @ APPROX FR 98 P/S
	6	43	ADDED PANAMA CANAL PILOT SHELTER @ FR 106 P/S
	6	44	ADDED SEARCHLIGHT STAN ON PLTF. 69'-6" ABV BL BET FR 136 (135
	6	45	ADDED AFT SEARCHLIGHT STAN & REVISED HANDRAIL @ TRAN FR 132 ℄
	7	46	INDICATED F.W.T.B.P. MAN HOLE BET FR. 11 & 12
	7	47	REVISED STRUCTURE OF VOIDS TO P/S & AFT OF CHAIN LOCKER & INDICATED W.T. ACCESS TRUNK FR 19-21, ℄ TO 4'-0" OFF ℄
	7	48	INDICATED DK CUTS & VENT TRUNKS FR 29-31
	7	49	REVISED BHD @ FR. 44 & REVISED ARRGT OF CREW'S RECREATION RM, STWD STORES & CLEAN LINEN RM TO SUIT
	7	50	INDICATED FREEZER IN GALLEY FR 48 @ ℄
	7	51	ADDED VERTICAL LDR'S AND M.H. (OVER) IN WALKWAYS AND BOX GDR'S P/S @ FRS 55, 56, 58, 61, 64, 67, 70, 73, 76, 79, & 82.
	7	52	DELETED M.H.'S AFT FR'S 73 & 95 IN BHD 40'-0" OFF ℄ P/S
	7	53	ADDED SCUTTLE (OVER) & VERTICAL LDR IN ENGINE RM. BET FR'S 87-88 APPROX 27'-6" OFF ℄ PORT.
	7	54	ADDED FIREMAN'S OUTFIT STOWAGE BET. FRS 89-90 APPROX 48'-0" OFF ℄ STBD
	7	55	DELETED INCLINED LDR'S FRS 115-117, 32'-0" OFF ℄ P/S & ADDED HINGED PLATE & VERTICAL LDR FR 118, 119 35'-0" OFF ℄ P/S
	8	56	IN FWD STORES FLAT ADDED ACCESS FOR MACHY REMOVAL FROM BOW THRUSTER RM @ FR 35, & ADDED VENT TRUNKS P/S @ FR 30 & 35
	8	57	DELETED F.O. OVERFLOW TK AFT FR 44 @ ℄ & ADDED VERTICAL LDR'S 7'-0" OFF ℄ P @ FR 44
	8	58	REVISED BOW THRUSTER MACHY RM TO INCLUDE MOTOR, MOTOR CONTROLLER, HYD POWER UNIT, DK CUT WITH ACCESS LDR'S & B.P. W.T. M.H.'S
	8	59	ADDED NAT'L DEF. WT AND "C" BEAM AND LCM-8 BEAM @ 34'-6" LEVEL NO. 7 HOLD
	9	60	ADDED VERTICAL LDR AFT FR 44 PORT
	9	61	RELOCATED DRAINWELL P/S FR 67 TO 70 AND FR 73
	9	62	ADDED F.W.T.B.P.M.H.R. APPROX 33'-6" OFF ℄ P/S BET FR 71 & 84
	9	63	ADDED DRAINWELLS APPROX 18'-6" OFF ℄ @ APPROX 2'-6" AFT FR 85 P/S

REVISION

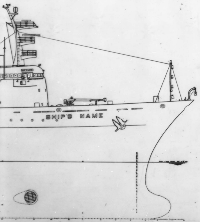
REV	PLATE	ITEM	DESCRIPTION
1	4	22	CORRECTED LOCATION OF CONTAINER CR[illegible]
	4	23	DELETED INCLINED LDRS (P/S) FR 115-1[illegible] VERTICAL LDR @ FR 118 & L.C.M. BEAM [illegible]
	4	24	ADDED R.H.W.T. HATCH BET FRS 28-[illegible] OFF ℄ (PORT)
	5	25	ADDED SUEZ CANAL DAVIT, ON FOCSLE [illegible]
	5	26	INDICATED LIFE PRESERVER STOWAGE [illegible] @ FR K (STBD)
	5	27	INDICATED STORES HANDLING CRANE [illegible] FR 14 & 29 (STBD)
	5	28	INDICATED VENT TRUNK @ UPPER DK, F[illegible] P/S.
	5	29	REVISED MASTER SWITCH FOR CAPSTAN[illegible] 7-8 & UPPER DK.
	5	30	INDICATED F.O. FILL CONTAINMENTS [illegible] P/S @ FR 45 & @ FR 50 UPPER DK.
	5	31	INDICATED REVISED EXH. & SUP A/C SY[illegible] FRS 47-50 (STBD)
	5	32	INDICATED RELOCATION OF ANTENNA T[illegible] BRIDGE DK 19'-3" OFF ℄ (PORT)
	5	33	INDICATED LOCATION OF E.P.I.R.B. BE[illegible] PORT BRIDGE WING 39'-3" OFF ℄
	6	34	REVISED ARRGT BOSN STORES FWD FR 6-[illegible] STRUCTURAL CHANGES & ANCHOR HANDLING M[illegible]
	6	35	ADDED VENT TRUNKS @ FR 30 APPROX [illegible]
	6	36	REVISED W.T. PONTOON HATCH COVERS THROUG[illegible] & REVISED LOCATION OF MANHOLES TO SUIT [illegible]
	6	37	REVISED LOCATION OF DK STOWAGE LKE[illegible] REVISED LIGHTER CRANE TIE DOWN @ F[illegible]
	6	38	ADDED TURNBUCKLE BOXES APPROX @ FR 60 [illegible]
	6	39	INDICATED CRANE LEG TIE DOWNS APPRO[illegible] 60, 40'-0" OFF ℄ P/S
	6	40	ADDED PENDANT RACKS @ APPROX F[illegible] ANTI-RACK BAR @ FR 78 P/S & TURNBUCK[illegible]
	6	41	INDICATED CONTAINER SUPPORTS & REVIS[illegible] OF VENTS ABOVE MACHY CASING FRS 85-[illegible]

7 | 6



INBOARD PROFILE
scale: 1/16"=1'-0"

PLATE 4 OF 14



OUTBOARD PROFILE
scale: 1/16"=1'-0"

PLATE 3 OF 14

GENERAL NOTES

REFERENCES

REV	NO	TITLE	DRAWING NO
	4	TYP. SECTIONS SHOWING TANKS CONFIGURATIONS & SHELL EXPAN.	01-03-165
	3	TANK TOP, INNER BOTTOM, MIDSHIP, & CROSS SECTIONS	01-03-164
	2	MAIN DK, 2ND DK, & MISC. FLATS	01-03-163
	1	BOOKLET OF GENERAL PLANS - UPPER DK. & ABV, DATA & TITLE PLATES	C7-1000 01-03-16

REVISIONS

REV	ZONE	DESCRIPTION
		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-162 REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: **NOTE: FOR REVISIONS SEE REF. NO 1, PLATE NO 1.**

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0						
1	7/21/80	NOT REQUIRED				
2	10-15-80	NOT REQUIRED				
3						
4						
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6						
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9						
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RESERVATIONS

~~FOR RESERVATIONS SEE REF NO 1, PLATE NO 1.~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY e.r DATE 9-6-78
CHECKED BY SR DATE 9-7-78
APVD B. J. Griffin/SR 9-7-78
APVD J. J. [illegible] PROJECT MANAGER 9/8/78
APVD NOT REQUIRED VP/CHIEF ENGINEER

BOOKLET OF GENERAL PLANS
INBOARD & OUTBOARD PROFILES

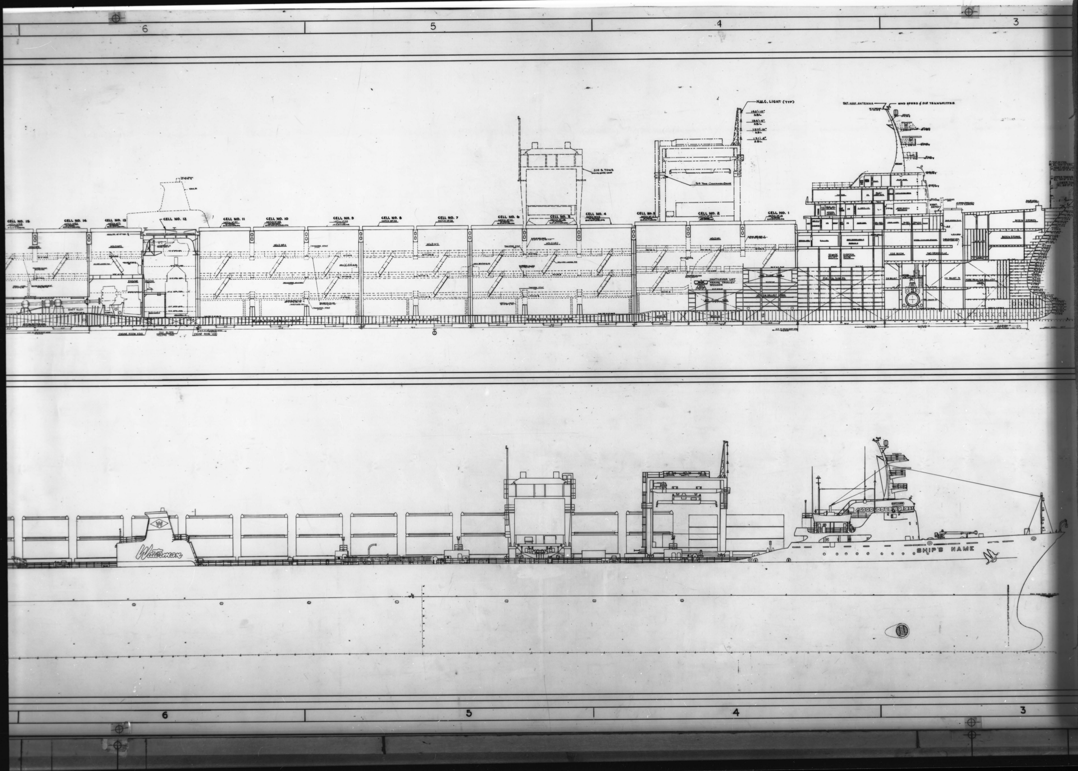
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SCALE 1/16"=1'-0" — **KEY PLAN**

A S I DWG NO C7-1000 01-03-162 REV 2

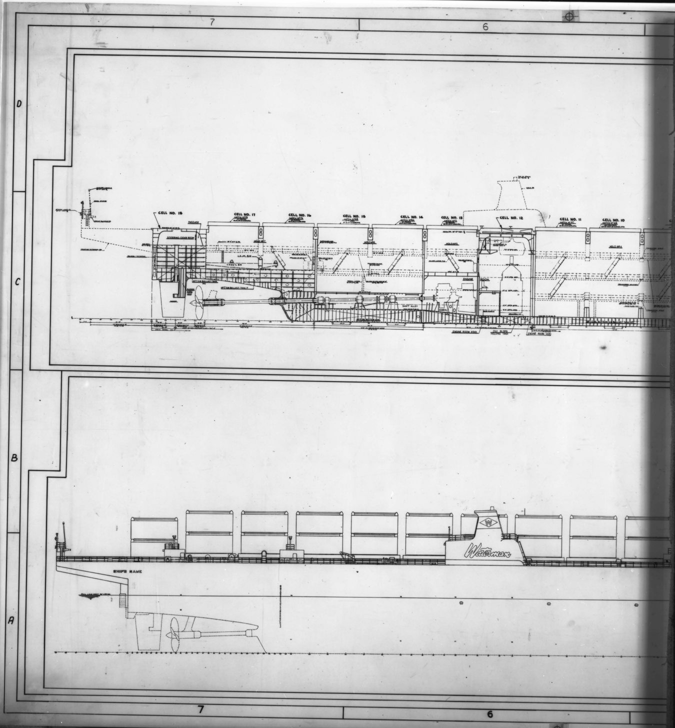
DISTRIBUTION

DEPARTMENT	REV 0	REV 1	REV 2
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PROD PLANNING		1	1
MOLD LOFT			
ESTIMATING			
PROJECT MANAGER	1	1	1
QUALITY CONTROL			
COMPUTER APPL			
ELECTRICAL			
ENGR STANDARDS			
FILES & RECORDS	1	1	1
HULL			
HULL COMPOSITE	1	1	
DESIGN			
OUTFITTING	1	1	1
STL TAKE OFF			
H V A C			
MATERIAL REQN			
MECHANICAL	1	1	1
MECH COMPOSITE			
RESEARCH & DEV			
BAYOU BLACK			
HARVEY			
INDUSTRIAL DIV			
SERVICE FOUNDRY			
JOINER CONTRACTOR	1		
ADMEASURER			
ABS (NY)			
ABS (NO)			
ABS (YARD)			
USCG (NO)	2		
USCG (YARD)		1	
USPHS	2		
OWNER (HOME)	1		
OWNER (YARD)			
MARAD (WASH)	2	2	2
MARAD (YARD)	1	1	1
FRIEDE & GOLDMAN	3	3	3
F & G (Y)		1	1
WATERMAN		4	4
Sig Solares		1	1
Hopeman		1	1
J. BRISNER		2	
TOTAL	33	37	37
DATE OF PRINT ISSUE	[illegible]	[illegible]	[illegible]

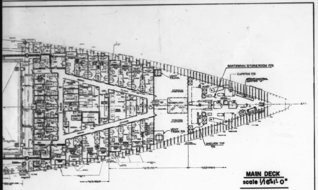
C7-1000 01-03-162



RED. 8X DATE 7-81
MA. NO. H-17 BLDR. NO. 01-03-162
FRAME NO. 2

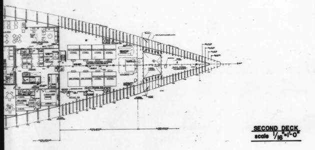


RED. 8X DATE 7-81
MA. NO. H-17 BLDR. NO. 01-03-162
FRAME NO. 3



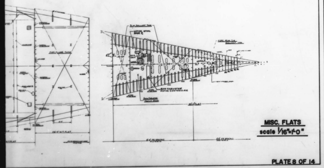
MAIN DECK
scale 1/16"=1'-0"

PLATE 6 OF 14



SECOND DECK
scale 1/16"=1'-0"

PLATE 7 OF 14



MISC. FLATS
scale 1/16"=1'-0"

PLATE 8 OF 14

GENERAL NOTES

REVISIONS

REV	ZONE	DESCRIPTION
		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-163 REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: NOTE: FOR REVISIONS SEE REF. NO. 1, PLATE NO. 1.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0						
1	[signature]	NOT REQUIRED				
2	10-15-80 [signature]	NOT REQUIRED				
3						
4						
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RESERVATIONS

~~FOR RESERVATIONS SEE REF NO 1, PLATE NO 1.~~

NO	DESCRIPTION

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

REFERENCES

REV	NO	TITLE	DRAWING NO
	4	TYP. SECTIONS SHOWING TANK CONFIGURATIONS & SHELL EXPANSION	01-03-165
	3	TANK TOP, INNER BOTTOM MIDSHIP & CROSS SECTIONS	01-03-164
	2	INBOARD & OUTBOARD PROFILES	01-03-162
	1	BOOKLET OF GENERAL PLANS - UPPER DK & ABV. & TITLE PLATES	C7-1000 01-03-16

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY e.r — DATE 9-6-78
CHECKED BY [signature] — DATE 9-7-78
APVD B. J. Griffin — 9-7-78
APVD J. J. Murphy, PROJECT MANAGER — 9/8/78
APVD NOT REQUIRED, VP/CHIEF ENGINEER

BOOKLET OF GENERAL PLANS
MAIN DK, 2ND DK, & MISC. FLATS

SIZE H — A S I DWG NO C7-1000 01-03-163 — REV 2
SCALE 1/16" = 1'-0" — **KEY PLAN**

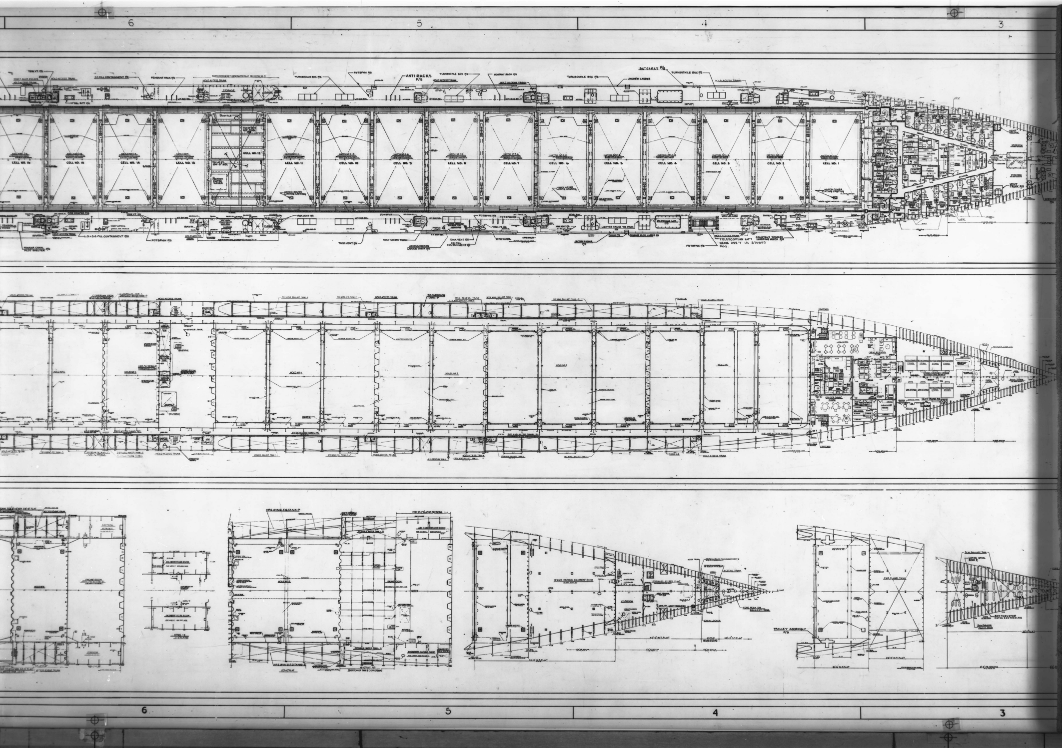
A S I DWG NO C7-1000 01-03-163 REV 2

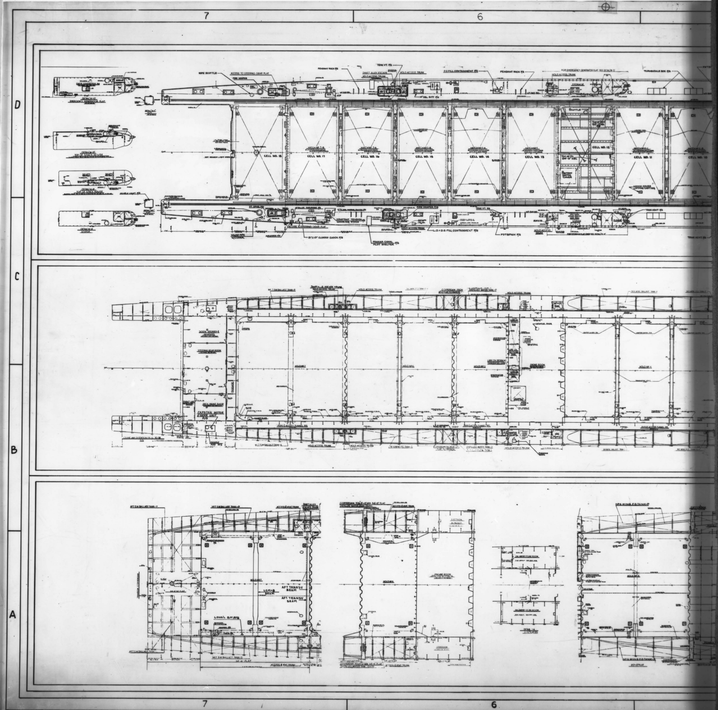
DISTRIBUTION (C7-1000 01-03-163)

DEPARTMENT
PRODUCTION
PROD PLANNING
MOLD LOFT
ESTIMATING
PROJECT MANAGER
QUALITY CONTROL
COMPUTER APPL
ELECTRICAL
ENGR STANDARDS
FILES & RECORDS
HULL
HULL COMPOSITE
DESIGN
OUTFITTING
STL TAKE OFF
H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
RESEARCH & DEV
BAYOU BLACK
HARVEY
INDUSTRIAL DIV
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
OWNER (HOME)
OWNER (YARD)
MARAD (WASH)
MARAD (YARD)
TOTAL
DATE OF PRINT ISSUE

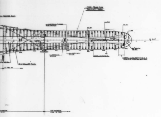
DISTRIBUTION (C7-1000 01-03-163)

DEPARTMENT
PRODUCTION
PROD PLANNING
MOLD LOFT
ESTIMATING
PROJECT MANAGER
QUALITY CONTROL
COMPUTER APPL
ELECTRICAL
ENGR STANDARDS
FILES & RECORDS
HULL
HULL COMPOSITE
DESIGN
OUTFITTING
STL TAKE OFF
H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
RESEARCH & DEV
BAYOU BLACK
HARVEY
INDUSTRIAL DIV
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
OWNER (HOME)
OWNER (YARD)
MARAD (WASH)
MARAD (YARD)
FRIEDE & GOLDMAN
T&D (Y)
WATERMAN
Sig Sol ARES
J. BRISNER
HAPEMAN
TOTAL
DATE OF PRINT ISSUE


6
5
4
3
ANTI RACKS
P/S
CELL NO. 1
CELL NO. 2
CELL NO. 3
TELESCOPING LIFT
BEAM ASS'Y IN STOWED
POS.
TROLLEY ASSEMBLY
P/S

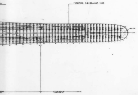

7
6
D
C
B
A
CAPSTAN MOTOR & GEAR UNIT P/S
AFT TRANSV BEAM
LONG'L BHD P/S
PANAMA CANAL PILOT SHELTER P/S

3 | 2 | 1



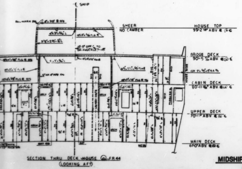
TANK TOP
scale: 1/16"= 1'-0"

PLATE 9 OF 14



INNER BOTTOM
scale: 1/16"= 1'-0"

PLATE 10 OF 14



MIDSHIP & CROSS SECTIONS
scale: 1/8"=1'-0"

PLATE 11 OF 14

GENERAL NOTES

REV	NO	TITLE	DRAWING NO
	4	TYP SECTIONS SHOWING TANKS CONFIGURATIONS & SHELL EXPANSION	01-03-165
	3	MAIN DK, 2ND DK & MISC FLATS	01-03-163
	2	INBOARD & OUTBOARD PROFILES	01-03-162
	1	BOOKLET OF GENERAL PLANS-UPPER DK & ABV., DATA & TITLE PLATES	C7-1000 01-03-16

REFERENCES

REVISIONS

REV	ZONE	DESCRIPTION
		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-164 REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: NOTE: FOR REVISIONS SEE REF. NO1, PLATE NO1.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0						
1	[signature]	NOT REQUIRED				
2	10-13-80 [signature]	NOT REQUIRED				
3						
4						
5						
6						
7						
8						
9						
10						

~~FOR RESERVATIONS SEE REF. NO1, PLATE NO. 1~~

NO | DESCRIPTION
RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY [initials] DATE 9-6-78
CHECKED BY [initials] DATE 9-7-78
APVD [signature] 9-7-78
APVD [signature] 9/8/78 PROJECT MANAGER
APVD NOT REQUIRED VP/CHIEF ENGINEER

BOOKLET OF GENERAL PLANS
TANK TOP, INNER BOTTOM
MIDSHIP & CROSS SECTIONS

SIZE H | A S I DWG NO C7-1000 01-03-164 | REV 2
SCALE AS NOTED | **KEY PLAN**

A S I DWG NO C7-1000 01-03-164 REV 2

H G F E D C B A

DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

C7-1000 01-03-164

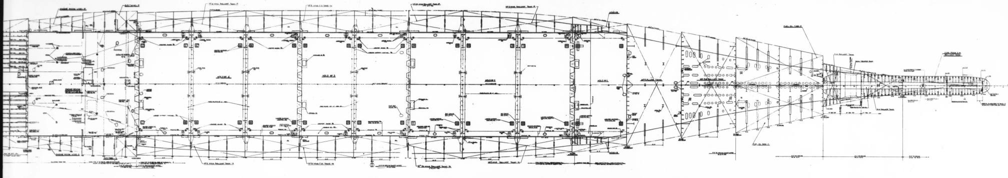
DISTRIBUTION

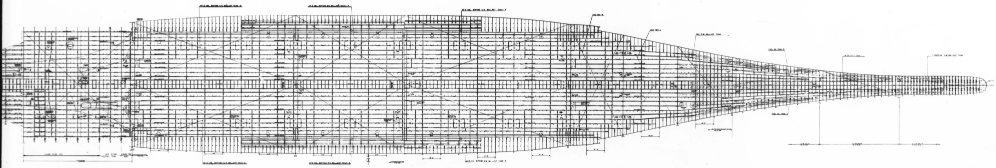
DEPARTMENT	REVISION
PRODUCTION	1 2
PROD PLANNING	1 1
MOLD LOFT	1 1
ESTIMATING	
PROJECT MANAGER	1 1
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	1 1
HULL	
HULL COMPOSITE	1 1
DESIGN	
OUTFITTING	1 1
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	1 1
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	2
USCG (YARD)	1
USPHS	2
OWNER (HOME)	1
OWNER (YARD)	
MARAD (WASH)	2 2 2
MARAD (YARD)	1 1 1
FRIEDE & GOLDMAN	3 3 3
F & G (Y)	1 1
WATERMAN	4 4
Sun Solares	1 1
J. Brisner	2
Hopeman	1 1
TOTAL	
DATE OF PRINT ISSUE	

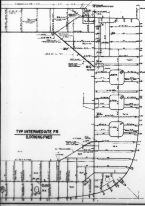
C7-1000 01-03-164

RED. 8X DATE 7-81
MA. NO. H-19 BLDR. NO. 01-03-164
FRAME NO. 1

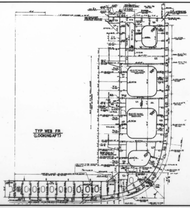
6 5 4 3



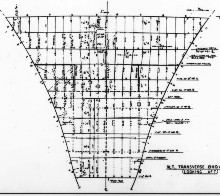




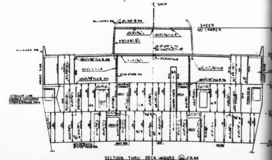
TYP INTERMEDIATE FR (LOOKING FWD)



TYP WEB FR (LOOKING AFT)



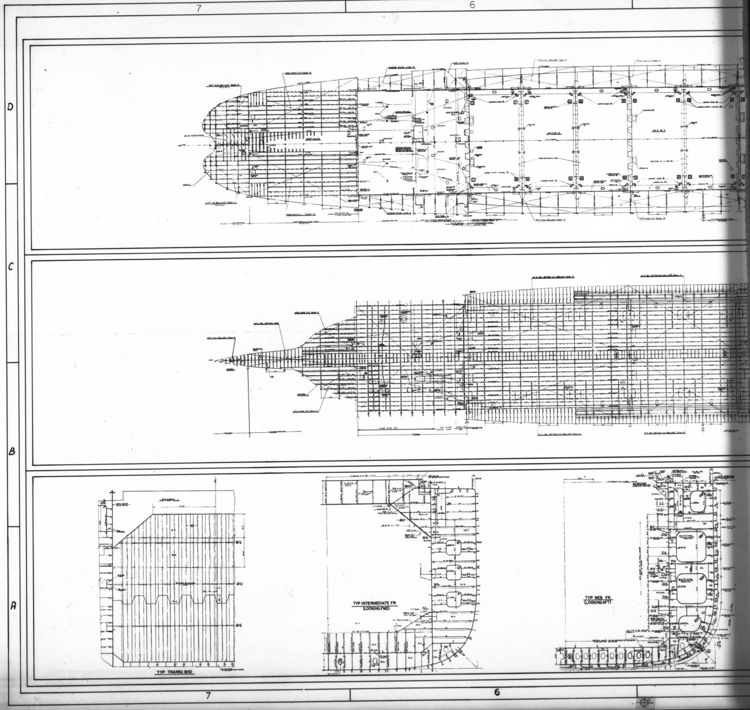
W.T. TRANSVERSE BHD 44 (LOOKING AFT)



SECTION THRU DECK HOUSE @ FR 44 (LOOKING AFT)

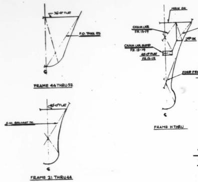
6 5 4 3

RED. 8X DATE 7-81
MA. NO. H-19 BLDR. NO. 01-03-164
FRAME NO. 2



7
6
D
C
B
A
TYP TRANSV. BHD
TYP INTERMEDIATE FR
(LOOKING FWD)
TYP WEB FR
(LOOKING AFT)

RED. 8X DATE 7-81
MA. NO. H-20 BLDR. NO. 01-03-165
FRAME NO. 1



TYP. SECTIONS SHOWING TANK CONFIGURATIONS
no scale

PLATE 14 OF 14



SHELL EXPANSION - AFT.
scale: 1/16" = 1'-0"

PLATE 13 OF 14

SHELL EXPANSION - FWD.
scale: 1/16" = 1'-0"

PLATE 12 OF 14

GENERAL NOTES

REFERENCES

REV	NO	TITLE	DRAWING NO
	4	TANK TOP, INNER BOTTOM, MIDSHIP & CROSS SECTIONS	01-03-164
	3	MAIN DK, 2ND DK, & MISC. FLATS	01-03-163
	2	INBOARD & OUTBOARD PROFILE	01-03-162
	1	BOOKLET OF GENERAL PLANS - UPPER DK. & ABV., DATA & TITLE PLATES	C7-1000 01-03-16

REVISIONS

REV	ZONE	DESCRIPTION
		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 01-03-165 REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: NOTE: FOR REVISIONS SEE REF. NO 1, PLATE NO 1.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0						
1	7/21/80	F+G 8-15-80				
2	10-15-80	F+G 11-11-80				
3						
4						
5						
6						
7						
8						
9						
10						

ASI DWG NO C7-1000 01-03-165 REV 2

RESERVATIONS

FOR RESERVATIONS SEE REF. NO 1, PLATE NO 1.

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY e.r DATE 9-6-78
CHECKED BY [signature] DATE 9-7-78
APVD B. J. Griffin 9-7-78
APVD [signature] PROJECT MANAGER 9/8/78
APVD NOT REQUIRED VP/CHIEF ENGINEER

BOOKLET OF GENERAL PLANS
TYP. SECTIONS SHOWING TANK CONFIGURATIONS & SHELL EXPAN

SIZE H — A S I DWG NO C7-1000 01-03-165 — REV 2
SCALE — **KEY PLAN**

DISTRIBUTION

C7-1000 01-03-165

DEPARTMENT: PRODUCTION, PROD PLANNING, MOLD LOFT, ESTIMATING, PROJECT MANAGER, QUALITY CONTROL, COMPUTER APPL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, RESEARCH & DEV, BAYOU BLACK, HARVEY, INDUSTRIAL DIV, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, OWNER (HOME), OWNER (YARD), MARAD (WASH), MARAD (YARD), TOTAL, DATE OF PRINT ISSUE

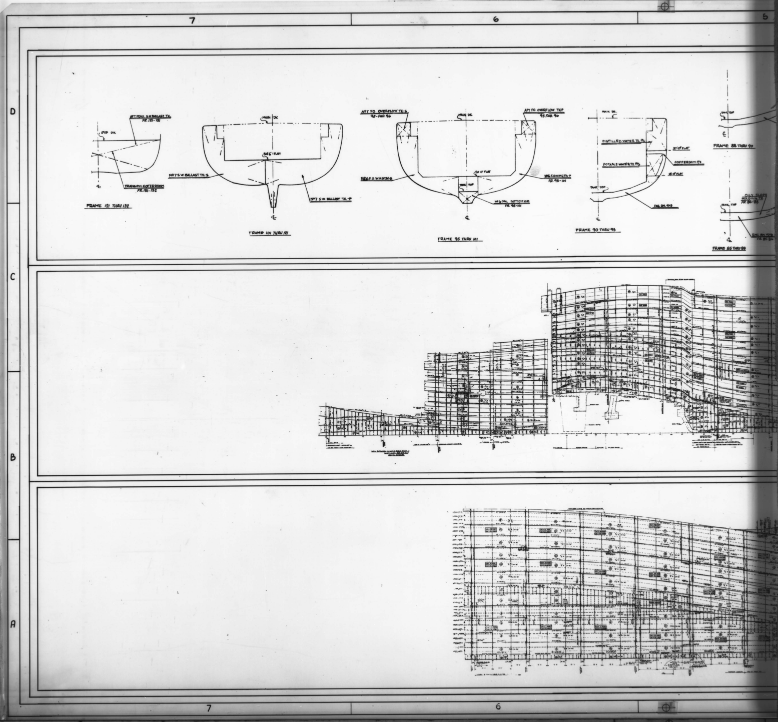
DISTRIBUTION

C7-1000 01-03-165

DEPARTMENT: PRODUCTION, PROD PLANNING, MOLD LOFT, ESTIMATING, PROJECT MANAGER, QUALITY CONTROL, COMPUTER APPL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, RESEARCH & DEV, BAYOU BLACK, HARVEY, INDUSTRIAL DIV, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, OWNER (HOME), OWNER (YARD), MARAD (WASH), MARAD (YARD), FRIEDE & GOLDMAN, F + G (Y), WATERMAN, S/G SOLARES, J. BRISNER, HOPEMAN, TOTAL, DATE OF PRINT ISSUE



RED. 8X DATE 7-81
MA. NO. H-20 BLDR. NO. 01-03-165
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-20 BLDR. NO. 01-03-165
FRAME NO. 3

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 1

DISTRIBUTION

DEPARTMENT | PRELIM | REVISION

PRODUCTION, PROD PLANNING, MOLD LOFT, PLANT ENGR & MAINT, ESTIMATING, PROGRAM MANAGER, QUALITY CONTROL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, BAYOU BLACK, HARVEY, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, MARAD (WASH), MARAD (YARD), OWNER (HOME), OWNER (YARD), ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, FCC, WATERMAN, MARAD

TOTAL, PARTIAL ISSUE, DATE OF ISSUE

Form A-HPD-C (9-78)

SIZE A | ASI DWG NO C7-1000 05-00-03 | SH NO B

A S I DWG NO 05-00-03 | REV 1

RESERVATIONS

NO.	DESCRIPTION

NAME OF VESSEL	A S I HULL NO	M A HULL NO	M A DESIGN
EDWARD RUTLEDGE	2308	337	C9-S-81f
BENJAMIN HARRISON	2307	336	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY RICHOUX — DATE 11-16-78

CHECKED BY DFN — DATE 11/16/78

APVD [signature] 11/17/78

APVD J.J. Murphy 11/17/78 — PROJECT MANAGER

APVD NOT REQUIRED — VP/CHIEF ENGINEER

TABLE OF OFFSETS

SIZE A | A S I DRAWING NO **C7-1000** 05-00-03 | REV 1

SCALE NONE

Form A-HTB-W (12-77)

INDEX

SHT. NO.	TITLE
A	TITLE BLOCK
B	PRINT DISTRIBUTION
C	INDEX
D	REVISIONS
E	REFERENCES
F	STEM PROFILE
G	STERN PROFILE
H	MAIN DECK CAMBER
I	SECTION THRU SUPERSTRUCTURE
1	PRINCIPAL DIMENSIONS
2-5	FRAME TABLE
6-35	WATERLINE HALF BREADTHS
36-55	BUTTOCK HEIGHTS
56-75	DECKS AND PLATFORMS
76-123	LONGITUDINALS
124-161	SIGHT EDGES
162-175	CONTROL LINES

SIZE A | REVISION | A.S.I. DWG. NO. C7-1000 05-00-03 | SHT. NO. C

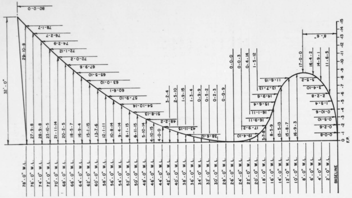
Form A-HIX-C (1/77)

REVISIONS

REV.	SHT.	DESCRIPTION
1	I	ADDED SKETCH SHOWING SECTION THRU SUPERSTRUCTURE. BY: A.J.R. 12-20-78 APVD.

SIZE A | A.S.I. DWG. NO. C7-1000 05-00-03 | SHT. NO. D

Form A-HRV-C (1/77)



STEM PROFILE
SCALE: 1/8" = 1'-0"

C7-1000 05-00-03
SHT. NO. F

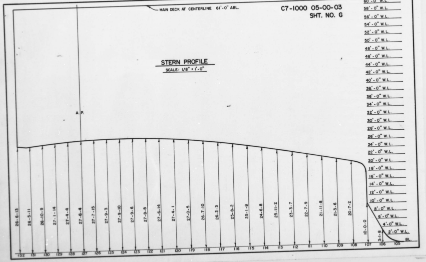
REFERENCES

REV.	NO.	TITLE	DRAWING NO.
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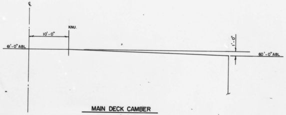
SIZE	REVISION	A.S.I. DWG. NO.
A		C7-1000 05-00-03
		SHT. NO. E

Form A-HRF-C (1/77)

C7-1000 05-00-03
SHT. NO. G



STERN PROFILE
SCALE: 1/8" = 1'-0"



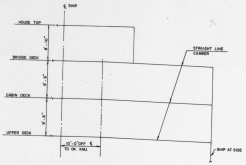
MAIN DECK CAMBER
SCALE: 1/8" = 1'-0"

C7-1000 05-00-03
SHT. NO. H

PRINCIPAL DIMENSIONS

LENGTH OVERALL (HULL)	845'-4"
LENGTH BETWEEN PERPENDICULARS	797'-4"
BEAM (MOLDED)	100'-0"
DEPTH AT SIDE (MOLDED)	60'-0"
DEPTH AT CENTERLINE	61'-0"
SCANTLING DRAFT	38'-0"

C7-1000 05-00-03
SHT. NO. 1



NOTE:
1. SHEER & CAMBER OF CABIN & BRIDGE DECKS SHALL CONFORM TO SHEER & CAMBER OF UPPER DECK.
2. HOUSE TOP SHEER SHALL CONFORM TO SHEER OF UPPER DECK & HAS NO CAMBER.

SECTION THRU SUPERSTRUCTURE
1/8" = 1'-0"

C7-1000 05-00-03
SHT. NO. I

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

PAGE NO. 2

F R A M E T A B L E

FRM.	LCG FT IN 16	FRM.	LCG FT IN 16	FRM.	LCG FT IN 16
-15	- 30- 0- 0	-14	- 28- 0- 0	-13	- 26- 0- 0
-12	- 24- 0- 0	-11	- 22- 0- 0	-10	- 20- 0- 0
-9	- 18- 0- 0	-8	- 16- 0- 0	-7	- 14- 0- 0
-6	- 12- 0- 0	-5	- 10- 0- 0	-4	- 8- 0- 0
-3	- 6- 0- 0	-2	- 4- 0- 0	-1	- 2- 0- 0
0	0- 0- 0	1	2- 0- 0	2	4- 0- 0
3	6- 0- 0	4	8- 0- 0	5	10- 0- 0
6	12- 0- 0	7	14- 0- 0	8	16- 0- 0
9	18- 0- 0	10	20- 0- 0	11	22- 0- 0
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15	30- 0- 0	16	32- 0- 0	17	34- 0- 0
18	36- 0- 0	19	38- 0- 0	20	40- 0- 0
21	42- 0- 0	22	44- 4- 0	23	46- 8- 0
24	49- 0- 0	25	51- 4- 0	26	53- 8- 0
27	56- 0- 0	28	58- 4- 0	29	60- 8- 0
30	63- 0- 0	31	65- 4- 0	32	67- 8- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

PAGE NO. 3

F R A M E T A B L E

FRM.	LCG FT IN 16	FRM.	LCG FT IN 16	FRM.	LCG FT IN 16
33	70- 0- 0	34	72- 4- 0	35	74- 8- 0
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39	84- 0- 0	40	86- 4- 0	41	88- 8- 0
42	91- 0- 0	43	93- 4- 0	44	95- 8- 0
45	103- 0- 0	46	110- 4- 0	47	117- 8- 0
48	125- 0- 0	49	132- 4- 0	50	139- 8- 0
51	147- 0- 0	52	154- 4- 0	53	166- 7- 0
54	178- 9- 0	55	191- 0- 0	56	203- 3- 0
57	215- 5- 0	58	227- 8- 0	59	239-11- 0
60	252- 1- 0	61	264- 4- 0	62	276- 7- 0
63	288- 9- 0	64	301- 0- 0	65	313- 3- 0
66	325- 5- 0	67	337- 8- 0	68	349-11- 0
69	362- 1- 0	70	374- 4- 0	71	386- 7- 0
72	398- 9- 0	73	411- 0- 0	74	423- 3- 0
75	435- 5- 0	76	447- 8- 0	77	459-11- 0
78	472- 1- 0	79	484- 4- 0	80	496- 7- 0

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 4

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

F R A M E T A B L E

FRM.	LCG FT IN 16	FRM.	LCG FT IN 16	FRM.	LCG FT IN 16
81	508- 9- 0	82	521- 0- 0	83	533- 3- 0
84	545- 5- 0	85	557- 8- 0	86	565- 0- 0
87	572- 4- 0	88	579- 8- 0	89	587- 0- 0
90	594- 4- 0	91	601- 8- 0	92	609- 0- 0
93	616- 4- 0	94	623- 8- 0	95	631- 0- 0
96	643- 3- 0	97	655- 5- 0	98	667- 8- 0
99	679-11- 0	100	692- 1- 0	101	704- 4- 0
102	708- 0- 0	103	711- 8- 0	104	715- 4- 0
105	719- 0- 0	106	722- 8- 0	107	726- 4- 0
108	730- 0- 0	109	733- 8- 0	110	737- 4- 0
111	741- 0- 0	112	744- 8- 0	113	748- 4- 0
114	752- 0- 0	115	755- 8- 0	116	759- 4- 0
117	763- 0- 0	118	766- 8- 0	119	770- 4- 0
120	774- 0- 0	121	777- 8- 0	122	781- 0- 0
123	784- 4- 0	124	787- 7- 0	125	790-10- 0
126	794- 1- 0	127	797- 4- 0	128	800- 7- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

F R A M E T A B L E

FRM.	LCG FT IN 16	FRM.	LCG FT IN 16	FRM.	LCG FT IN 16
129	803-10- 0	130	807- 0- 0	131	810- 2- 0
132	813- 4- 0	133	820- 2- 0	134	827- 0- 0
135	833-10- 0	136	840- 8- 0	137	847- 6- 0
138	854- 4- 0	139	861- 4- 0		

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

W A T E R L I N E H A L F B R E A D T H S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
-8			1- 5-12	2- 6- 2	2- 1-13	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-7		2- 3- 6	3-10- 3	4- 2- 1	3- 9- 7	2- 9- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-6		3-10-14	4- 8-11	4-11- 1	4- 7- 1	3- 7- 8	1-10- 8	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-5	2- 4-15	4- 6- 1	5- 1-11	5- 3-11	5- 0- 0	4- 1- 8	2- 7- 3	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-4	3- 4- 6	4-10-11	5- 5- 1	5- 6- 3	5- 2- 7	4- 4- 4	2-11- 4	0- 8- 7	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-3	3- 9-13	5- 1-15	5- 7-14	5- 8- 2	5- 4- 1	4- 6- 1	3- 1- 6	1- 5- 5	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-2	4- 0- 8	5- 3-14	5- 9- 9	5- 9- 9	5- 5- 7	4- 7- 7	3- 2-13	1- 8- 6	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-1	4- 1-12	5- 4-13	5-10-14	5-11- 1	5- 6- 7	4- 8- 1	3- 3- 6	1- 9- 5	0- 7-15	0- 0- 0	0- 0- 0	0- 0- 0
0	4- 2- 2	5- 5- 3	5-11-10	6- 0- 0	5- 7- 0	4- 8- 6	3- 3-12	1- 9-15	0- 9- 1	0- 3- 7	0- 2- 1	0- 0-10
1	4- 2- 4	5- 5- 6	5-11-15	6- 0-12	5- 7- 7	4- 8- 6	3- 3-14	1-10-10	0-10- 6	0- 4-12	0- 4- 2	0- 4- 6
2	4- 2- 7	5- 5- 9	6- 0- 5	6- 1- 2	5- 7-12	4- 8- 9	3- 4- 3	1-11- 6	0-11-13	0- 6- 7	0- 5-14	0- 6- 7
3	4- 2-10	5- 5-12	6- 0- 9	6- 1- 7	5- 8- 0	4- 8-12	3- 4- 9	2- 0- 5	1- 1- 5	0- 8- 4	0- 7-12	0- 8-11
4	4- 2-13	5- 5-15	6- 0-13	6- 1-10	5- 8- 1	4- 8-13	3- 4-15	2- 1- 4	1- 2-13	0-10- 2	0- 9-12	0-10-15
5	4- 3- 0	5- 6- 2	6- 1- 0	6- 1-11	5- 8- 2	4- 9- 0	3- 5- 7	2- 2- 5	1- 4- 7	1- 0- 2	0-11-14	1- 1- 5
6	4- 3- 2	5- 6- 4	6- 1- 2	6- 1-11	5- 8- 3	4- 9- 3	3- 6- 0	2- 3- 8	1- 6- 3	1- 2- 3	1- 2- 2	1- 3-12
7	4- 3- 5	5- 6- 6	6- 1- 3	6- 1-11	5- 8- 4	4- 9- 7	3- 6-10	2- 4-12	1- 8- 0	1- 4- 5	1- 4- 7	1- 6- 5
8	4- 3- 7	5- 6- 7	6- 1- 4	6- 1-11	5- 8- 5	4- 9-11	3- 7- 6	2- 6- 2	1- 9-14	1- 6- 9	1- 6-13	1- 9- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

W A T E R L I N E H A L F B R E A D T H S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
9	4- 3-10	5- 6- 9	6- 1- 3	6- 1-11	5- 8- 6	4-10- 1	3- 8- 4	2- 7- 9	1-11-14	1- 8-14	1- 9- 6	1-11-13
10	4- 3-12	5- 6-11	6- 1- 3	6- 1-10	5- 8- 9	4-10- 8	3- 9- 4	2- 9- 1	2- 1-14	1-11- 5	2- 0- 1	2- 2-11
11	4- 3-15	5- 6-12	6- 1- 2	6- 1-10	5- 8-12	4-11- 1	3-10- 5	2-10-11	2- 4- 1	2- 1-13	2- 2-13	2- 5-11
12	4- 4- 1	5- 6-13	6- 1- 2	6- 1-10	5- 9- 0	4-11-11	3-11- 8	3- 0- 8	2- 6- 4	2- 4- 6	2- 5-10	2- 8-12
13	4- 4- 2	5- 6-13	6- 1- 2	6- 1-12	5- 9- 4	5- 0- 6	4- 0-12	3- 2- 5	2- 8- 9	2- 7- 1	2- 8- 9	2-11-13
14	4- 4- 4	5- 6-13	6- 1- 3	6- 1-13	5- 9- 9	5- 1- 3	4- 2- 2	3- 4- 5	2-11- 0	2- 9-12	2-11- 8	3- 2-15
15	4- 4- 6	5- 6-14	6- 1- 5	6- 2- 0	5-10- 0	5- 2- 0	4- 3-10	3- 6- 6	3- 1- 8	3- 0- 9	3- 2- 8	3- 6- 3
16	4- 4- 9	5- 6-15	6- 1- 6	6- 2- 3	5-10- 7	5- 2-15	4- 5- 2	3- 8- 8	3- 4- 1	3- 3- 8	3- 5-11	3- 9- 7
17	4- 4-13	5- 7- 2	6- 1- 9	6- 2- 7	5-11- 1	5- 4- 0	4- 6-12	3-10-11	3- 6-12	3- 6- 8	3- 8-14	4- 0-13
18	4- 5- 2	5- 7- 6	6- 1-12	6- 2-12	5-11-11	5- 5- 2	4- 8- 7	4- 1- 1	3- 9- 8	3- 9- 9	4- 0- 2	4- 4- 3
19	4- 5- 8	5- 7-11	6- 2- 0	6- 3- 3	6- 0- 7	5- 6- 6	4-10- 4	4- 3- 7	4- 0- 6	4- 0-11	4- 3- 8	4- 7-11
20	4- 5-15	5- 8- 1	6- 2- 5	6- 3-10	6- 1- 4	5- 7-11	5- 0- 2	4- 5-15	4- 3- 5	4- 3-15	4- 6-15	4-11- 4
21	4- 6- 8	5- 8- 9	6- 2-12	6- 4- 3	6- 2- 2	5- 9- 1	5- 2- 2	4- 8- 8	4- 6- 5	4- 7- 4	4-10- 7	5- 2-15
22	4- 7- 3	5- 9- 3	6- 3- 6	6- 4-15	6- 3- 3	5-10-12	5- 4-10	4-11-11	4- 9-15	4-11- 3	5- 2-10	5- 7- 4
23	4- 7-15	5- 9-14	6- 4- 2	6- 5-13	6- 4- 7	6- 0-10	5- 7- 4	5- 2-15	5- 1-11	5- 3- 4	5- 6-14	5-11-11
24	4- 8-12	5-10-11	6- 4-15	6- 6-13	6- 5-13	6- 2- 9	5- 9-15	5- 6- 6	5- 5- 9	5- 7- 7	5-11- 3	6- 4- 2
25	4- 9-11	5-11-10	6- 5-14	6- 7-14	6- 7- 5	6- 4-11	6- 0-13	5- 9-13	5- 9- 8	5-11-10	6- 3-10	6- 8-11

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
43	6-10-11	8- 5- 6	9- 5- 0	10- 1- 3	10- 7-14	11- 1-13	11- 7-10	12- 1- 9	12- 7-13	13- 2- 9	13- 9-12	14- 5- 7
44	7- 0- 6	8- 7-10	9- 7-14	10- 4- 9	10-11-11	11- 6- 0	12- 0- 1	12- 6- 5	13- 0-14	13- 7-14	14- 3- 4	14-11- 2
45	7- 5-11	9- 2-15	10- 5- 2	11- 3-11	12- 0- 2	12- 7- 9	13- 2-11	13- 9-13	14- 5- 2	15- 0-13	15- 8-13	16- 5- 3
46	7-11- 0	9-10- 8	11- 2-13	12- 3- 3	13- 1- 4	13- 9-15	14- 6- 1	15- 2- 0	15-10- 1	16- 6- 6	17- 2-13	17-11- 9
47	8- 4- 7	10- 6- 4	12- 0-13	13- 3- 4	14- 2-15	15- 1- 0	15-10- 3	16- 6-15	17- 3-10	18- 0- 6	18- 9- 4	19- 6- 4
48	8-10- 2	11- 2- 8	12-11- 4	14- 3-12	15- 5- 3	16- 4-11	17- 2-14	18- 0- 6	18- 9-11	19- 6-13	20- 3-15	21- 1- 1
49	9- 4- 5	11-11- 5	13-10- 5	15- 4-12	16- 7-15	17- 8-13	18- 8- 1	19- 6- 6	20- 4- 2	21- 1- 9	21-10-13	22- 8- 0
50	9-11- 4	12- 8-15	14-10- 2	16- 6- 7	17-11- 4	19- 1- 8	20- 1-12	21- 0-11	21-10-14	22- 8- 8	23- 5-13	24- 3- 0
51	10- 7- 4	13- 7-10	15-10-15	17- 8-15	19- 3- 3	20- 6- 9	21- 7-11	22- 7- 4	23- 5-12	24- 3- 9	25- 0-14	25-10- 0
52	11- 4- 9	14- 7-11	17- 0-14	19- 0- 6	20- 7-13	22- 0- 1	23- 1-13	24- 1-13	25- 0-10	25-10- 9	26- 7-14	27- 4-15
53	12-11- 0	16- 6-10	19- 2- 9	21- 3-14	23- 0-11	24- 5-15	25- 8- 6	26- 8-14	27- 7-15	28- 6- 0	29- 3- 5	30- 0- 3
54	14- 8- 0	18- 8- 4	21- 6- 5	23- 8-15	25- 6- 7	27- 0- 2	28- 2-15	29- 3- 9	30- 2-11	31- 0-11	31- 9-13	32- 6- 7
55	16- 7- 4	21- 0- 4	23-11-14	26- 3- 2	28- 0-15	29- 6-11	30- 9- 8	31-10- 2	32- 9- 0	33- 6-12	34- 3- 8	34-11-11
56	18- 8- 3	23- 5-10	26- 6- 5	28- 9-13	30- 7- 9	32- 1- 1	33- 3- 9	34- 3-13	35- 2- 6	35-11-10	36- 7-14	37- 3- 7
57	20- 9-15	25-11- 6	29- 0-10	31- 4- 0	33- 1- 7	34- 6- 8	35- 8- 8	36- 8- 2	37- 6- 1	38- 2-10	38-10- 4	39- 5- 1
58	22-11-13	28- 5- 5	31- 6-10	33- 9- 7	35- 6- 4	36-10-12	38- 0- 1	38-10-15	39- 8- 1	40- 3-13	40-10- 9	41- 4-10
59	25- 1-13	30-10- 1	33-11- 6	36- 1- 6	37- 9- 5	39- 1- 0	40- 1- 8	40-11- 9	41- 7-13	42- 2-11	42- 8- 9	43- 1-12

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
26	4-10-11	6- 0-10	6- 6-15	6- 9- 2	6- 8-15	6- 6-14	6- 3-11	6- 1- 7	6- 1- 8	6- 3-15	6- 8- 1	7- 1- 5
27	4-11-11	6- 1-11	6- 8- 1	6-10- 7	6-10-11	6- 9- 3	6- 6-12	6- 5- 1	6- 5-10	6- 8- 6	7- 0-10	7- 5-15
28	5- 0-13	6- 2-14	6- 9- 5	6-11-15	7- 0- 8	6-11-10	6- 9-14	6- 8-14	6- 9-13	7- 0-13	7- 5- 4	7-10-11
29	5- 2- 0	6- 4- 2	6-10-11	7- 1- 8	7- 2- 8	7- 2- 3	7- 1- 2	7- 0-11	7- 2- 2	7- 5- 6	7- 9-15	8- 3- 8
30	5- 3- 3	6- 5- 7	7- 0- 3	7- 3- 4	7- 4-10	7- 4-14	7- 4- 7	7- 4-10	7- 6- 7	7-10- 0	8- 2-12	8- 8- 6
31	5- 4- 8	6- 6-14	7- 1-12	7- 5- 2	7- 6-14	7- 7-10	7- 7-14	7- 8-10	7-10-14	8- 2-11	8- 7- 9	9- 1- 6
32	5- 5-13	6- 8- 6	7- 3- 8	7- 7- 1	7- 9- 4	7-10- 9	7-11- 6	8- 0-11	8- 3- 5	8- 7- 6	9- 0- 8	9- 6- 6
33	5- 7- 3	6- 9-15	7- 5- 5	7- 9- 3	7-11-12	8- 1- 9	8- 3- 0	8- 4-14	8- 7-14	9- 0- 3	9- 5- 7	9-11- 7
34	5- 8- 9	6-11-10	7- 7- 3	7-11- 7	8- 2- 6	8- 4-11	8- 6-11	8- 9- 1	9- 0- 7	9- 5- 1	9-10- 7	10- 4-10
35	5-10- 0	7- 1- 5	7- 9- 3	8- 1-13	8- 5- 2	8- 7-15	8-10- 8	9- 1- 5	9- 5- 2	9- 9-14	10- 3- 8	10- 9-13
36	5-11- 8	7- 3- 2	7-11- 5	8- 4- 5	8- 8- 1	8-11- 5	9- 2- 5	9- 5-11	9- 9-13	10- 2-14	10- 8-10	11- 3- 1
37	6- 1- 0	7- 5- 0	8- 1- 9	8- 6-15	8-11- 1	9- 2-13	9- 6- 5	9-10- 1	10- 2- 9	10- 7-13	11- 1-12	11- 8- 7
38	6- 2- 9	7- 6-14	8- 3-15	8- 9-11	9- 2- 4	9- 6- 6	9-10- 5	10- 2- 8	10- 7- 5	11- 0-14	11- 7- 0	12- 1-13
39	6- 4- 2	7- 8-14	8- 6- 6	9- 0- 9	9- 5- 9	9-10- 1	10- 2- 7	10- 7- 0	11- 0- 2	11- 5-14	12- 0- 4	12- 7- 4
40	6- 5-12	7-10-15	8- 8-14	9- 3- 9	9- 8-15	10- 1-14	10- 6-10	10-11- 9	11- 4-15	11-11- 0	12- 5- 9	13- 0-11
41	6- 7- 6	8- 1- 0	8-11- 8	9- 6-11	10- 0- 8	10- 5-12	10-10-14	11- 4- 2	11- 9-14	12- 4- 2	12-10-14	13- 6- 4
42	6- 9- 0	8- 3- 3	9- 2- 3	9- 9-14	10- 4- 2	10- 9-12	11- 3- 3	11- 8-13	12- 2-13	12- 9- 5	13- 4- 5	13-11-13

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
60	27- 3- 4	33- 0-14	36- 1-13	38- 2-13	39- 9-11	41- 0- 8	42- 0- 3	42- 9- 7	43- 4-13	43-10-14	44- 3-15	44- 8- 5
61	29- 4- 7	35- 1- 5	38- 1- 7	40- 1- 8	41- 7- 4	42- 9- 0	43- 7-12	44- 4- 4	44-11- 0	45- 4- 6	45- 8-12	46- 0- 7
62	31- 4- 3	36-10- 7	39- 9-10	41- 8-13	43- 1- 7	44- 2- 1	45- 0- 0	45- 7-14	46- 2- 1	46- 7- 0	46-10-14	47- 2- 0
63	33- 0-15	38- 3- 8	41- 1-12	43- 0- 5	44- 4- 2	45- 3-15	46- 1- 3	46- 8- 8	47- 2- 4	47- 6-12	47-10- 4	48- 1- 1
64	34- 5- 9	39- 4-11	42- 1-14	44- 0- 1	45- 3- 8	46- 2-14	46-11-11	47- 6- 9	47-11-15	48- 4- 1	48- 7- 3	48- 9-10
65	35- 5- 8	40- 1-15	42- 9-15	44- 8- 0	45-11-12	46-11- 5	47- 7-13	48- 2- 4	48- 7- 2	48-10-14	49- 1-11	49- 3-14
66	36- 1- 8	40- 8- 7	43- 3-10	45- 1- 8	46- 5-11	47- 5- 7	48- 1-13	48- 7-14	49- 0- 6	49- 3-12	49- 6- 4	49- 8- 0
67	36- 6- 9	41- 1- 3	43- 8- 4	45- 5-15	46- 9-15	47- 9-11	48- 6- 0	48-11-15	49- 4- 3	49- 7- 3	49- 9- 4	49-10- 9
68	36- 9- 3	41- 4- 7	43-11-10	45- 9- 0	47- 0-10	48- 0- 3	48- 8- 8	49- 2- 7	49- 6- 9	49- 9- 5	49-10-15	49-11-12
69	36-10- 4	41- 6- 4	44- 1-10	45-10-12	47- 2- 0	48- 1- 5	48- 9-10	49- 3- 9	49- 7-11	49-10- 4	49-11-10	50- 0- 0
70	36-10-11	41- 6-12	44- 2- 4	45-11- 5	47- 2- 5	48- 1- 9	48- 9-14	49- 3-13	49- 7-15	49-10- 8	49-11-13	50- 0- 0
71	36-10-11	41- 6-12	44- 2- 4	45-11- 5	47- 2- 5	48- 1- 9	48- 9-14	49- 3-13	49- 7-15	49-10- 8	49-11-13	50- 0- 0
72	36-10-11	41- 6-12	44- 2- 4	45-11- 5	47- 2- 5	48- 1- 9	48- 9-14	49- 3-13	49- 7-15	49-10- 8	49-11-13	50- 0- 0
73	36-10-11	41- 6-12	44- 2- 4	45-11- 5	47- 2- 5	48- 1- 9	48- 9-14	49- 3-13	49- 7-15	49-10- 8	49-11-13	50- 0- 0
74	36-10-11	41- 6-12	44- 2- 4	45-11- 5	47- 2- 5	48- 1- 9	48- 9-14	49- 3-13	49- 7-15	49-10- 8	49-11-13	50- 0- 0
75	36-10-11	41- 6-12	44- 2- 4	45-11- 5	47- 2- 5	48- 1- 9	48- 9-14	49- 3-13	49- 7-15	49-10- 8	49-11-13	50- 0- 0
76	36-10-11	41- 6-12	44- 2- 4	45-11- 5	47- 2- 5	48- 1- 9	48- 9-14	49- 3-13	49- 7-15	49-10- 8	49-11-13	50- 0- 0

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DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
77	36- 9- 6	41- 5-14	44- 1-11	45-10-14	47- 2- 0	48- 1- 5	48- 9-10	49- 3-11	49- 7-13	49-10- 7	49-11-12	50- 0- 0
78	36- 5- 7	41- 3- 2	43-11-13	45- 9- 8	47- 0-15	48- 0- 7	48- 9- 0	49- 3- 3	49- 7- 8	49-10- 3	49-11-10	50- 0- 0
79	35-11- 1	40-10- 6	43- 8- 7	45- 7- 0	46-11- 0	47-10-14	48- 7-12	49- 2- 4	49- 6-12	49- 9-12	49-11- 6	50- 0- 0
80	35- 2- 5	40- 3- 6	43- 3- 5	45- 3- 3	46- 8- 0	47- 8- 7	48- 5-13	49- 0-12	49- 5-11	49- 9- 0	49-11- 0	49-11-14
81	34- 2- 5	39- 5-12	42- 8- 2	44- 9-12	46- 3-12	47- 5- 2	48- 3- 3	48-10-11	49- 4- 2	49- 7-15	49-10- 6	49-11-10
82	32- 9- 8	38- 4-13	41-10- 4	44- 2- 4	45-10- 0	47- 0- 9	47-11- 9	48- 7-14	49- 2- 0	49- 6- 7	49- 9- 6	49-11- 2
83	30-11- 8	37- 0- 0	40- 9- 4	43- 4- 5	45- 2- 6	46- 6- 8	47- 6-12	48- 4- 1	48-11- 2	49- 4- 5	49- 8- 0	49-10- 5
84	28- 8-11	35- 2-14	39- 4-12	42- 3- 6	44- 4- 3	45-10- 8	47- 0- 4	47-10-15	48- 7- 2	49- 1- 5	49- 5-14	49- 9- 0
85	26- 0- 0	33- 0-15	37- 8- 3	40-10-11	43- 2-10	44-11- 8	46- 3- 6	47- 3-11	48- 1- 6	48- 8-14	49- 2- 9	49- 6-11
86	24- 0- 9	31- 7- 3	36- 5-15	39-11- 1	42- 5- 0	44- 3- 7	45- 8-11	46-10- 3	47- 8-14	48- 5- 5	48-11-13	49- 4-11
87	21- 9- 1	29-11-10	35- 2- 4	38-10- 5	41- 6- 6	43- 6- 7	45- 1- 2	46- 3-14	47- 3-10	48- 1- 0	48- 8- 5	49- 2- 1
88	19- 1- 1	28- 1-13	33- 9- 0	37- 8- 8	40- 6-14	42- 8-11	44- 4-13	45- 8-12	46- 9- 9	47- 7-15	48- 4- 3	48-10-12
89	16- 2- 8	26- 1- 5	32- 2- 2	36- 5- 5	39- 6- 8	41-10- 4	43- 7-13	45- 1- 0	46- 2-14	47- 2- 3	47-11- 6	48- 6-13
90	13- 1- 3	23- 9-14	30- 5- 3	35- 0-10	38- 5- 1	40-11- 1	42-10- 4	44- 4-12	45- 7-12	46- 8- 1	47- 6- 2	48- 2- 6
91	9- 9-12	21- 3-10	28- 6- 2	33- 6- 4	37- 2- 5	39-11- 2	42- 0- 4	43- 8- 2	45- 0- 5	46- 1- 9	47- 0- 9	47- 9-10
92	6- 7- 0	18- 7- 1	26- 4-13	31-10- 2	35-10- 3	38-10- 4	41- 1-11	42-11- 3	44- 4- 9	45- 6-15	46- 6-13	47- 4-10
93	5- 5-14	15- 8-10	24- 1- 1	30- 0- 6	34- 4-11	37- 8- 3	40- 2- 4	42- 1-12	43- 8-10	45- 0- 1	46- 0-15	46-11-10

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PAGE NO. 13

WATERMAN LASH

W A T E R L I N E H A L F B R E A D T H S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
107									0- 0- 0	25- 2-11	32- 4- 7	36- 4-10
108											31- 0- 2	35- 6-14
109											29- 3- 3	34- 7-11
110											27- 1- 4	33- 7- 3
111												32- 3-13
112												30- 9- 9
113												28-11- 3

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M O L D L O F T O F F S E T S

PAGE NO. 12

WATERMAN LASH

W A T E R L I N E H A L F B R E A D T H S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
94	4-11-12	12- 5- 6	21- 6- 7	28- 0-11	32- 9-15	36- 4-15	39- 1-15	41- 3-11	43- 0- 5	44- 5- 2	45- 7- 1	46- 6- 9
95	4- 7-13	7-10- 2	18- 7-14	25-10- 7	31- 1-12	35- 0-11	38- 0-10	40- 4-15	42- 3- 9	43- 9-15	45- 1- 1	46- 1- 9
96	4- 3-11	5-10- 3	12- 5- 2	21- 6- 0	27-10-15	32- 6-14	36- 0- 8	38- 9- 2	40-11- 8	42- 9- 0	44- 2-10	45- 5- 0
97	4- 1- 1	5- 1-10	6-10- 0	15- 4-11	23- 9- 0	29- 7- 9	33- 9- 9	36-11- 1	39- 5- 5	41- 6- 5	43- 2-15	44- 7-10
98	3-10-15	4- 8- 1	5- 7-11	7- 2-11	17- 2-11	25- 7-11	31- 0- 5	34- 9- 8	37- 8- 7	40- 1- 3	42- 1- 0	43- 8- 5
99	3- 8- 3	4- 3- 9	4-11-11	5- 9- 3	7- 1- 0	18-10-11	27- 1-13	32- 1-10	35- 8- 5	38- 5-10	40- 8-12	42- 6-15
100	3- 3-10	3-10- 4	4- 5- 2	5- 0- 1	5- 7- 3	6- 5-12	20- 2- 7	28- 4- 0	33- 2- 9	36- 7- 4	39- 2-12	41- 3-15
101	2- 7- 2	3- 0- 2	3- 5- 0	3- 9-14	4- 2-11	4- 7- 6	5- 2-11	21- 4- 0	29- 7- 3	34- 3- 9	37- 6- 0	39-11- 3
102	2- 2-15	2- 7- 7	2-11-13	3- 4- 2	3- 8- 7	4- 0-11	4- 4-10	17- 8- 9	28- 0- 2	33- 4- 9	36-10-12	39- 5-11
103	1- 9-10	2- 1-10	2- 5- 9	2- 9- 8	3- 1- 4	3- 5- 0	3- 8- 9	4- 6- 0	25-11- 3	32- 3-15	36- 2- 8	38-11-11
103								8- 1-13				
103								11-11- 3				
104	1- 3- 3	1- 6-12	1-10- 5	2- 1-14	2- 5- 4	2- 8- 6	2-11- 6	3- 2-15	23- 2-15	31- 1- 5	35- 5- 3	38- 5- 0
105	0- 7-11	0-10-13	1- 1-15	1- 5- 0	1- 8- 3	1-11- 1	2- 1- 8	2- 3-10	3- 6-14	29- 6-15	34- 6- 6	37- 9-10
105									5- 5- 3			
105									19- 7-11			
106		0- 1- 6	0- 4- 7	0- 7- 5	0- 9-15	1- 0- 3	1- 2- 0	1- 3- 5	1- 7- 1	27- 8- 5	33- 6- 1	37- 1- 8
106									8- 8- 5			

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M O L D L O F T O F F S E T S

PAGE NO. 14

WATERMAN LASH

W A T E R L I N E H A L F B R E A D T H S

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
-8	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-7	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-6	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-5	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-4	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-3	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0
-2	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 1- 9	0- 7- 6	0-11- 6
-1	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 4-15	0- 7-10	0-10- 7	1- 1-11	1- 5-13
0	0- 0- 0	0- 1- 7	0- 1-14	0- 3- 5	0- 4- 6	0- 5-11	0- 7- 9	0- 9-14	1- 0- 9	1- 3-12	1- 7- 8	1-11-14
1	0- 4-12	0- 5- 2	0- 5-10	0- 6- 9	0- 7-15	0- 9-13	1- 0- 1	1- 2-11	1- 5-12	1- 9- 4	2- 1- 5	2- 6- 1
2	0- 7- 2	0- 7-14	0- 8-13	0-10- 1	0-11-13	1- 1-15	1- 4- 9	1- 7- 9	1-10-15	2- 2-12	2- 7- 3	3- 0- 4
3	0- 9-13	0-10-14	1- 0- 2	1- 1-12	1- 3-12	1- 6- 4	1- 9- 2	2- 0- 7	2- 4- 3	2- 8- 6	3- 1- 1	3- 6- 6
4	1- 0- 6	1- 1-13	1- 3- 7	1- 5- 6	1- 7-12	1-10- 9	2- 1-12	2- 5- 7	2- 9- 8	3- 2- 0	3- 6-15	4- 0- 9
5	1- 3- 1	1- 4-14	1- 6-14	1- 9- 2	1-11-14	2- 2-15	2- 6- 7	2-10- 6	3- 2-12	3- 7- 9	4- 0-13	4- 6-12
6	1- 5-14	1- 8- 0	1-10- 5	2- 1- 0	2- 3-15	2- 7- 5	2-11- 2	3- 3- 6	3- 8- 1	4- 1- 2	4- 6-11	5- 0-14
7	1- 8-12	1-11- 2	2- 1-13	2- 4-13	2- 8- 2	2-11-12	3- 3-14	3- 8- 6	4- 1- 6	4- 6-12	5- 0- 9	5- 7- 1
8	1-11-11	2- 2- 6	2- 5- 6	2- 8-11	3- 0- 4	3- 4- 3	3- 8-10	4- 1- 7	4- 6-11	5- 0- 6	5- 6- 8	6- 1- 4

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M O L D L O F T O F F S E T S

PAGE NO. 15

WATERMAN LASH

W A T E R L I N E H A L F B R E A D T H S

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
9	2- 2-12	2- 5-11	2- 8-15	3- 0- 8	3- 4- 6	3- 8-11	4- 1- 6	4- 6- 9	5- 0- 1	5- 6- 0	6- 0- 6	6- 7- 7
10	2- 5-14	2- 9- 1	3- 0- 9	3- 4- 6	3- 8- 9	4- 1- 3	4- 6- 3	4-11-10	5- 5- 7	5-11-10	6- 6- 5	7- 1-10
11	2- 9- 1	3- 0- 8	3- 4- 4	3- 8- 6	4- 0-13	4- 5-11	4-11- 0	5- 4-13	5-10-13	6- 5- 4	7- 0- 3	7- 7-12
12	3- 0- 6	3- 4- 1	3- 8- 1	4- 0- 6	4- 5- 2	4-10- 4	5- 3-14	5- 9-14	6- 4- 3	6-10-14	7- 6- 2	8- 1-15
13	3- 3-10	3- 7-10	3-11-14	4- 4- 8	4- 9- 8	5- 2-14	5- 8-11	6- 2-15	6- 9- 9	7- 4- 8	8- 0- 0	8- 8- 1
14	3- 7- 0	3-11- 4	4- 3-12	4- 8-11	5- 1-15	5- 7- 9	6- 1-10	6- 8- 2	7- 2-15	7-10- 3	8- 5-14	9- 2- 4
15	3-10- 7	4- 2-14	4- 7-11	5- 0-13	5- 6- 6	6- 0- 4	6- 6- 9	7- 1- 4	7- 8- 5	8- 3-13	8-11-13	9- 8- 6
16	4- 1-14	4- 6- 9	4-11-10	5- 5- 1	5-10-13	6- 4-15	6-11- 7	7- 6- 6	8- 1-11	8- 9- 7	9- 5-11	10- 2- 9
17	4- 5- 6	4-10- 5	5- 3-10	5- 9- 4	6- 3- 4	6- 9-10	7- 4- 6	7-11- 9	8- 7- 2	9- 3- 2	9-11- 9	10- 8-11
18	4- 8-15	5- 2- 2	5- 7-10	6- 1- 8	6- 7-11	7- 2- 5	7- 9- 6	8- 4-12	9- 0- 9	9- 8-13	10- 5- 8	11- 2-13
19	5- 0-10	5- 6- 0	5-11-11	6- 5-12	7- 0- 4	7- 7- 2	8- 2- 6	8-10- 0	9- 6- 1	10- 2- 7	10-11- 6	11- 9- 0
20	5- 4- 5	5- 9-14	6- 3-13	6-10- 2	7- 4-13	7-11-14	8- 7- 6	9- 3- 4	9-11- 8	10- 8- 2	11- 5- 5	12- 3- 2
21	5- 8- 2	6- 1-14	6- 8- 0	7- 2- 8	7- 9- 7	8- 4-12	9- 0- 7	9- 8- 8	10- 4-15	11- 1-13	11-11- 3	12- 9- 4
22	6- 0-10	6- 6- 9	7- 0-15	7- 7-11	8- 2-14	8-10- 6	9- 6- 5	10- 2-10	10-11- 5	11- 6- 7	12- 6- 1	13- 4- 6
23	6- 5- 4	6-11- 6	7- 5-15	8- 0-15	8- 8- 6	9- 4- 2	10- 0- 4	10- 8-12	11- 5-11	12- 3- 1	13- 0-15	13-11- 8
24	6- 9-14	7- 4- 3	7-11- 0	8- 6- 4	9- 1-14	9- 9-14	10- 6- 3	11- 2-15	12- 0- 1	12- 9-11	13- 7-13	14- 6-10
25	7- 2- 9	7- 9- 1	8- 4- 2	8-11- 9	9- 7- 7	10- 3-10	11- 0- 3	11- 9- 2	12- 6- 8	13- 4- 5	14- 2-11	15- 1-11

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 6

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MOLD LOFT OFFSETS

PAGE NO. 16

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
26	7- 7- 5	8- 2- 0	8- 9- 4	9- 4-15	10- 1- 0	10- 9- 7	11- 6- 3	12- 3- 5	13- 0-14	13-10-15	14- 9- 9	15- 8-13
27	8- 0- 2	8- 7- 0	9- 2- 7	9-10- 6	10- 6-10	11- 3- 4	12- 0- 3	12- 9- 8	13- 7- 4	14- 5- 9	15- 4- 6	16- 3-14
28	8- 5- 0	9- 0- 1	9- 7-12	10- 3-13	11- 0- 4	11- 9- 1	12- 6- 3	13- 3-12	14- 1-11	15- 0- 3	15-11- 3	16-10-14
29	8- 9-15	9- 5- 3	10- 1- 0	10- 9- 5	11- 5-15	12- 2-15	13- 0- 4	13- 9-15	14- 8- 2	15- 6-12	16- 6- 0	17- 5-14
30	9- 2-15	9-10- 6	10- 6- 6	11- 2-14	11-11-10	12- 8-13	13- 6- 5	14- 4- 3	15- 2- 8	16- 1- 6	17- 0-13	18- 0-14
31	9- 8- 1	10- 3- 9	10-11-13	11- 8- 7	12- 5- 6	13- 2-11	14- 0- 6	14-10- 7	15- 8-15	16- 8- 0	17- 7-10	18- 7-13
32	10- 1- 3	10- 8-14	11- 5- 4	12- 2- 1	12-11- 2	13- 8-10	14- 6- 7	15- 4-11	16- 3- 6	17- 2- 9	18- 2- 6	19- 2-12
33	10- 6- 7	11- 2- 4	11-10-12	12- 7-11	13- 4-15	14- 2- 9	15- 0- 9	15-10-15	16- 9-13	17- 9- 2	18- 9- 2	19- 9-10
34	10-11-11	11- 7-10	12- 4- 5	13- 1- 6	13-10-13	14- 8- 8	15- 6-11	16- 5- 3	17- 4- 3	18- 3-11	19- 3-13	20- 4- 8
35	11- 5- 0	12- 1- 2	12- 9-14	13- 7- 2	14- 4-10	15- 2- 8	16- 0-12	16-11- 7	17-10-10	18-10- 4	19-10- 8	20-11- 5
36	11-10- 7	12- 6-10	13- 3- 8	14- 0-13	14-10- 8	15- 8- 8	16- 6-14	17- 5-11	18- 5- 0	19- 4-13	20- 5- 3	21- 6- 2
37	12- 3-14	13- 0- 3	13- 9- 3	14- 6-10	15- 4- 6	16- 2- 8	17- 1- 0	17-11-15	18-11- 6	19-11- 5	20-11-13	22- 0-14
38	12- 9- 6	13- 5-13	14- 2-15	15- 0- 7	15-10- 5	16- 8- 8	17- 7- 2	18- 6- 3	19- 5-12	20- 5-12	21- 6- 6	22- 7- 9
39	13- 2-15	13-11- 8	14- 8-11	15- 6- 5	16- 4- 4	17- 2- 9	18- 1- 5	19- 0- 7	20- 0- 1	21- 0- 4	22- 0-15	23- 2- 4
40	13- 8- 9	14- 5- 3	15- 2- 8	16- 0- 3	16-10- 3	17- 8- 9	18- 7- 7	19- 6-11	20- 6- 7	21- 6-11	22- 7- 8	23- 8-14
41	14- 2- 4	14-11- 0	15- 8- 5	16- 6- 1	17- 4- 2	18- 2-10	19- 1- 9	20- 0-14	21- 0-11	22- 1- 1	23- 1-15	24- 3- 7
42	14- 8- 0	15- 4-13	16- 2- 3	17- 0- 0	17-10- 2	18- 8-11	19- 7-11	20- 7- 1	21- 7- 0	22- 7- 7	23- 8- 7	24-10- 0

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WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 17

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
43	15- 1-12	15-10-10	16- 8- 1	17- 5-14	18- 4- 2	19- 2-11	20- 1-12	21- 1- 4	22- 1- 4	23- 1-12	24- 2-13	25- 4- 7
44	15- 7- 9	16- 4- 8	17- 2- 0	17-11-14	18-10- 2	19- 8-12	20- 7-14	21- 7- 7	22- 7- 8	23- 8- 1	24- 9- 3	25-10-14
45	17- 1-15	17-11- 2	18- 8-11	19- 6-11	20- 5- 0	21- 3-13	22- 3- 0	23- 2-11	24- 2-14	25- 3-10	26- 4-14	27- 6-10
46	18- 8-10	19- 5-15	20- 3- 9	21- 1- 9	21-11-15	22-10-12	23-10- 0	24- 9-12	25-10- 0	26-10-11	28- 0- 0	29- 1-13
47	20- 3- 6	21- 0-13	21-10- 8	22- 8- 8	23- 6-14	24- 5-10	25- 4-14	26- 4- 8	27- 4-11	28- 5- 6	29- 6- 9	30- 8- 6
48	21-10- 5	22- 7-12	23- 5- 6	24- 3- 6	25- 1-11	26- 0- 5	26-11- 7	27-11- 0	28-11- 0	29-11- 9	31- 0- 9	32- 2- 3
49	23- 5- 4	24- 2-11	25- 0- 4	25-10- 2	26- 8- 5	27- 6-13	28- 5-12	29- 5- 1	30- 4-14	31- 5- 3	32- 6- 0	33- 7- 5
50	25- 0- 4	25- 9- 9	26- 7- 1	27- 4-12	28- 2-12	29- 1- 1	29-11-11	30-10-13	31-10- 4	32-10- 4	33-10-11	34-11-12
51	26- 7- 2	27- 4- 6	28- 1-11	28-11- 3	29- 8-15	30- 6-15	31- 5- 4	32- 4- 0	33- 3- 2	34- 2-11	35- 2-12	36- 3- 6
52	28- 1-15	28-11- 0	29- 8- 1	30- 5- 5	31- 2-12	32- 0- 6	32-10- 6	33- 8-11	34- 7- 6	35- 6- 9	36- 6- 2	37- 6- 4
53	30- 8-14	31- 5- 8	32- 2- 3	32-10-13	33- 7-10	34- 4- 9	35- 1-12	35-11- 5	36- 9- 3	37- 7- 8	38- 6- 4	39- 5- 7
54	33- 2-11	33-10-13	34- 6-14	35- 2-14	35-10-15	36- 7- 1	37- 3- 7	38- 0- 1	38- 9- 2	39- 6- 8	40- 4- 3	41- 2- 5
55	35- 7- 7	36- 2-15	36-10- 5	37- 5- 8	38- 0-12	38- 8- 0	39- 3- 8	39-11- 4	40- 7- 4	41- 3- 9	42- 0- 3	42- 9- 2
56	37-10- 8	38- 5- 4	38-11-14	39- 6- 4	40- 0-10	40- 7- 1	41- 1- 9	41- 8- 5	42- 3- 6	42-10-10	43- 6- 2	44- 1-13
57	39-11- 6	40- 5- 6	40-11- 2	41- 4-12	41-10- 4	42- 3-12	42- 9- 6	43- 3- 2	43- 9- 2	44- 3- 5	44- 9-12	45- 4- 5
58	41-10- 2	42- 3- 6	42- 8- 5	43- 1- 1	43- 5-11	43-10- 5	44- 3- 0	44- 7-13	45- 0-13	45- 6- 0	45-11- 6	46- 4-15
59	43- 6- 8	43-10-14	44- 3- 0	44- 6-15	44-10-12	45- 2- 8	45- 6- 6	45-10- 4	46- 2- 5	46- 6-10	46-11- 1	47- 3- 9

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WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 18

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
60	45- 0- 4	45- 3-13	45- 7- 4	45-10- 7	46- 1- 8	46- 4- 8	46- 7- 8	46-10-10	47- 1-14	47- 5- 5	47- 8-14	48- 0- 8
61	46- 3-11	46- 6-10	46- 9- 5	46-11-14	47- 2- 4	47- 4-11	47- 7- 1	47- 9- 9	48- 0- 2	48- 2-12	48- 5- 7	48- 8- 2
62	47- 4-12	47- 7- 1	47- 9- 3	47-11- 3	48- 1- 2	48- 3- 0	48- 4-15	48- 6-14	48- 8-13	48-10-12	49- 0-11	49- 2- 8
63	48- 3- 4	48- 5- 3	48- 6-13	48- 8- 6	48- 9-14	48-11- 5	49- 0-12	49- 2- 4	49- 3-10	49- 5- 0	49- 6- 4	49- 7- 6
64	48-11- 8	49- 1- 1	49- 2- 6	49- 3- 9	49- 4-10	49- 5-11	49- 6-11	49- 7-11	49- 8- 9	49- 9- 6	49-10- 1	49-10-10
65	49- 5- 8	49- 6-12	49- 7-12	49- 8-10	49- 9- 6	49-10- 0	49-10- 9	49-11- 1	49-11- 7	49-11-12	49-11-15	50- 0- 0
66	49- 9- 5	49-10- 4	49-10-14	49-11- 6	49-11-11	49-11-14	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
67	49-11- 6	49-11-12	49-11-15	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
68	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
69	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
70	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
71	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
72	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
73	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
74	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
75	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
76	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0

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MOLD LOFT OFFSETS

PAGE NO. 19

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
77	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
78	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
79	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
80	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
81	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
82	49-11-15	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
83	49-11-10	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
84	49-10-14	49-11-13	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
85	49- 9- 8	49-11- 3	49-11-15	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
86	49- 8- 2	49-10- 7	49-11-10	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
87	49- 6- 4	49- 9- 3	49-11- 0	49-11-14	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
88	49- 3-12	49- 7- 6	49- 9-14	49-11- 6	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
89	49- 0-10	49- 5- 1	49- 8- 5	49-10- 7	49-11-10	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
90	48- 9- 0	49- 2- 4	49- 6- 3	49- 9- 0	49-10-14	49-11-13	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
91	48- 5- 0	48-10-15	49- 3-10	49- 7- 2	49- 9- 9	49-11- 2	49-11-14	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
92	48- 0-12	48- 7- 6	49- 0-11	49- 4-13	49- 7-14	49-10- 0	49-11- 5	49-11-15	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0
93	47- 8- 7	48- 3-12	48- 9-10	49- 2- 5	49- 6- 0	49- 8-10	49-10- 7	49-11- 8	49-11-15	50- 0- 0	50- 0- 0	50- 0- 0

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
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MOLD LOFT OFFSETS

PAGE NO. 21

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
111	36- 6- 5	39- 3- 4	41- 3- 0	42- 8-14	43-11- 0	44-10- 8	45- 7-12	46- 3- 1	46- 8-11	47- 1- 4	47- 5- 4	47- 8-13
112	35- 7-15	38- 8- 2	40- 9-10	42- 4-10	43- 7- 7	44- 7- 6	45- 4-15	46- 0- 8	46- 6- 5	46-11- 1	47- 3- 2	47- 6-11
113	34- 8- 6	38- 0- 8	40- 3-14	42- 0- 1	43- 3-10	44- 4- 1	45- 1-15	45- 9-12	46- 3-14	46- 8-13	47- 0-15	47- 4- 9
114	33- 6-11	37- 4- 0	39-10- 1	41- 7- 9	42-11-14	44- 0-10	44-10-13	45- 6-13	46- 1- 4	46- 6- 6	46-10-11	47- 2- 5
115	32- 2-15	36- 6- 7	39- 3- 3	41- 2- 6	42- 7-10	43- 9- 1	44- 7- 9	45- 3-15	45-10-10	46- 3-15	46- 8- 6	47- 0- 1
116	30- 7-13	35- 7- 8	38- 7- 9	40- 8- 9	42- 3- 1	43- 5- 3	44- 4- 2	45- 0-13	45- 7-13	46- 1- 7	46- 6- 0	46- 9-11
117		34- 7- 2	37-11- 9	40- 2-14	41-10-11	43- 1- 6	44- 0-10	44- 9-10	45- 4-15	45-10-15	46- 3-10	46- 7- 6
118		33- 4-11	37- 2-12	39- 8- 9	41- 5-11	42- 9- 4	43- 9- 0	44- 6- 6	45- 2- 0	45- 8- 3	46- 1- 1	46- 4-15
119		32- 0- 4	36- 4- 9	39- 1- 1	40-11-13	42- 4- 8	43- 5- 1	44- 3- 0	44-11- 0	45- 5- 7	45-10- 7	46- 2- 7
120		30- 4-10	35- 5- 5	38- 5- 6	40- 6- 0	41-11-13	43- 1- 1	43-11- 8	44- 8- 0	45- 2-11	45- 7-15	46- 0- 1
121		28- 4-14	34- 4- 7	37- 8-13	39-11-14	41- 7- 0	42- 9- 0	43- 7-15	44- 4-14	44-11-15	45- 5- 6	45- 9- 9
122		26- 2-12	33- 3- 4	37- 0- 4	39- 5-11	41- 2- 4	42- 5- 3	43- 4-11	44- 1-15	44- 9- 4	45- 2-14	45- 7- 3
123		23- 4-15	32- 0-13	36- 2-14	38-10-15	40- 9- 2	42- 1- 2	43- 1- 6	43-10-15	44- 6- 7	45- 0- 3	45- 4- 9
124		19- 1-10	30- 9- 4	35- 5- 3	38- 3-13	40- 3-11	41- 8-15	42- 9-15	43- 7-15	44- 3-10	44- 9- 8	45- 2- 1
125		12- 3- 9	29- 3- 6	34- 6-10	37- 8- 4	39- 9-14	41- 4- 7	42- 6- 4	43- 4-13	44- 0-14	44- 6-15	44-11- 9
126		8- 4-12	27- 6- 3	33- 6- 6	37- 0- 0	39- 3-14	40-11-10	42- 2- 6	43- 1- 9	43-10- 1	44- 4- 6	44- 9- 2
127		7- 6- 0	25- 4- 0	32- 6- 1	36- 3- 7	38- 9- 6	40- 6-11	41-10- 6	42-10- 4	43- 7- 3	44- 1-12	44- 6-10

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MOLD LOFT OFFSETS

PAGE NO. 20

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
94	47- 4- 3	48- 0- 1	48- 6- 9	48-11-13	49- 3-15	49- 7- 1	49- 9- 5	49-10-13	49-11-10	49-11-15	50- 0- 0	50- 0- 0
95	46-11-14	47- 8- 7	48- 3- 8	48- 9- 4	49- 1-13	49- 5- 6	49- 8- 0	49- 9-13	49-11- 0	49-11-11	49-11-15	50- 0- 0
96	46- 4-12	47- 2- 6	47-10- 5	48- 4-13	48-10- 0	49- 2- 2	49- 5- 5	49- 7-11	49- 9- 7	49-10-10	49-11- 6	49-11-13
97	45- 9- 0	46- 7-15	47- 4-12	47-11-15	48- 5-11	48-10- 5	49- 2- 0	49- 4-15	49- 7- 3	49- 8-15	49-10- 3	49-11- 1
98	44-11-13	46- 0- 5	46-10- 5	47- 6- 6	48- 0-13	48- 6- 1	48-10- 5	49- 1-11	49- 4- 7	49- 6-10	49- 8- 6	49- 9-10
99	44- 0-13	45- 3- 3	46- 2-10	46-11-12	47- 7- 2	48- 1- 2	48- 6- 0	48-10- 0	49- 1- 4	49- 3-14	49- 6- 0	49- 7-10
100	43- 0- 4	44- 4-10	45- 5-11	46- 4- 1	47- 0- 8	47- 7- 6	48- 1- 0	48- 5-10	48- 9- 7	49- 0- 9	49- 3- 1	49- 5- 1
101	41-10- 2	43- 4- 9	44- 7- 4	45- 7- 2	46- 4-12	47- 0- 9	47- 6-15	48- 0- 4	48- 4-11	48- 8- 6	48-11- 6	49- 1-13
102	41- 5- 9	43- 0- 9	44- 3-14	45- 4- 4	46- 2- 4	46-10- 5	47- 4-15	47-10- 6	48- 3- 0	48- 6-13	48-10- 0	49- 0- 8
103	41- 0-11	42- 8- 6	44- 0- 6	45- 1- 5	45-11-12	46- 8- 1	47- 2-13	47- 8- 7	48- 1- 2	48- 5- 2	48- 8- 6	48-11- 1
104	40- 7- 8	42- 4- 2	43- 8-12	44-10- 5	45- 9- 3	46- 5-12	47- 0-10	47- 6- 6	47-11- 4	48- 3- 6	48- 6-12	48- 9- 9
105	40- 2- 2	41-11-14	43- 5- 3	44- 7- 1	45- 6- 3	46- 3- 2	46-10- 6	47- 4- 5	47- 9- 5	48- 1- 9	48- 5- 1	48- 8- 0
106	39- 8- 4	41- 7- 7	43- 1- 7	44- 3-11	45- 3- 2	46- 0- 7	46- 8- 0	47- 2- 4	47- 7- 6	47-11-11	48- 3- 5	48- 6- 6
107	39- 1-12	41- 2- 6	42- 9- 7	44- 0- 5	45- 0- 4	45- 9-14	46- 5-11	47- 0- 1	47- 5- 6	47- 9-12	48- 1- 7	48- 4-10
108	38- 6-12	40- 9- 0	42- 5- 1	43- 8-12	44- 9- 3	45- 7- 4	46- 3- 6	46- 9-15	47- 3- 5	47- 7-12	47-11- 8	48- 2-11
109	37-11- 5	40- 3- 7	42- 0- 9	43- 4-14	44- 5-14	45- 4- 8	46- 1- 1	46- 7-14	47- 1- 3	47- 5- 9	47- 9- 6	48- 0-11
110	37- 3- 4	39- 9- 9	41- 8- 0	43- 1- 1	44- 2-10	45- 1-10	45-10- 8	46- 5- 8	46-11- 0	47- 3- 7	47- 7- 5	47-10-12

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MOLD LOFT OFFSETS

PAGE NO. 22

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
128		6- 7-15	22- 6-11	31- 3-13	35- 6- 2	38- 2- 9	40- 1- 5	41- 6- 3	42- 6-15	43- 4- 6	43-11- 4	44- 4- 2
129		5- 9-13	18- 5- 9	30- 0-13	34- 8- 5	37- 7- 3	39- 7-13	41- 1-15	42- 3- 7	43- 1- 7	43- 8- 9	44- 1-10
130		4-11-12	12- 3- 0	28- 8- 0	33- 9-14	36-11- 7	39- 2- 1	40- 9- 9	42- 0- 0	42-10- 7	43- 5-15	43-11- 4
131		4- 1- 0	6- 6- 5	27- 0- 4	32-11- 5	36- 3-14	38- 7-15	40- 4-10	41- 8- 1	42- 7- 7	43- 3- 7	43- 8-15
132		3- 2- 6	5- 1-12	25- 0-11	31-11- 8	35- 7-12	38- 2- 0	40- 0- 0	41- 4- 6	42- 4- 6	43- 0-13	43- 6-10
133		31- 2- 7	35-11- 5	38- 1-11	39- 6-10	40- 6- 4	41- 2- 8	41- 8-12	42- 1-15	42- 6- 2	42- 9-14	43- 1- 6

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MOLD LOFT OFFSETS

PAGE NO. 23

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
-11												3- 0- 9
-10										0-11-15	2- 9-12	3-10-15
-9									1- 4-11	2- 7- 8	3- 7- 8	4- 6- 8
-8	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	1- 6- 2	2- 5- 7	3- 4- 7	4- 4- 9	5- 5-12
-7	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	1- 5- 9	2- 3- 8	3- 2- 2	4- 1- 6	5- 1- 9	6- 2-11
-6	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 7- 8	1- 5- 8	2- 2- 9	3- 0- 4	3-10-12	4-10- 4	5-10- 9	6-11- 8
-5	0- 0- 0	0- 0- 0	0- 0- 0	0-10- 8	1- 6- 5	2- 2- 2	2-10-12	3- 8-10	4- 7- 6	5- 6-15	6- 7- 3	7- 8- 2
-4	0- 0- 0	0- 5- 6	0-11-13	1- 6- 9	2- 2- 1	2-10- 4	3- 7- 5	4- 5- 5	5- 4- 1	6- 3- 9	7- 3-14	8- 4-13
-3	0- 8-12	1- 2- 2	1- 7-14	2- 2- 5	2- 9-14	3- 6- 7	4- 3-13	5- 1-14	6- 0-11	7- 0- 3	8- 0- 8	9- 1- 6
-2	1- 3-14	1- 9- 0	2- 3- 0	2- 9-14	3- 5-11	4- 2- 8	5- 0- 2	5-10- 6	6- 9- 4	7- 8-13	8- 9- 0	9- 9-14
-1	1-10- 9	2- 4- 0	2-10- 5	3- 5- 8	4- 1-10	4-10-11	5- 8- 8	6- 6-15	7- 5-14	8- 5- 5	9- 5- 9	10- 6- 5
0	2- 5- 0	2-10-13	3- 5- 7	4- 0-15	4- 9- 6	5- 6-13	6- 4-14	7- 3- 8	8- 2- 9	9- 2- 1	10- 2- 2	11- 2-14
1	2-11- 8	3- 5-11	4- 0- 9	4- 8- 7	5- 5- 4	6- 2-15	7- 1- 4	8- 0- 1	8-11- 2	9-10- 9	10-10-10	11-11- 3
2	3- 6- 0	4- 0- 7	4- 7-12	5- 3-15	6- 1- 1	6-11- 1	7- 9- 9	8- 8- 8	9- 7-11	10- 7- 1	11- 6-15	12- 7- 7
3	4- 0- 7	4- 7- 5	5- 2-14	5-11- 6	6- 8-11	7- 6-14	8- 6- 1	9- 5- 2	10- 4- 1	11- 3- 7	12- 3- 4	13- 3- 9
4	4- 6-15	5- 2- 1	5- 9-15	6- 6-12	7- 4- 6	8- 2-15	9- 2- 7	10- 1-10	11- 0- 9	11-11-14	12-11-10	13-11-13
5	5- 1- 6	5- 8-13	6- 5- 0	7- 2- 1	8- 0- 1	8-10-15	9-10-13	10-10- 0	11- 8-15	12- 8- 4	13- 7-14	14- 7-15

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 8

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
6	5- 7-13	6- 3- 9	7- 0- 1	7- 9- 7	8- 7-11	9- 6-15	10- 7- 2	11- 6- 6	12- 5- 4	13- 4- 8	14- 4- 1	15- 3-15
7	6- 2- 4	6-10- 5	7- 7- 2	8- 4-12	9- 3- 5	10- 2-13	11- 3- 6	12- 2-10	13- 1- 8	14- 0-11	15- 0- 2	15-11-14
8	6- 8-12	7- 5- 0	8- 2- 2	9- 0- 1	9-10-15	10-10-12	11-11- 9	12-10-13	13- 9-10	14- 8-12	15- 8- 1	16- 7-11
9	7- 3- 3	7-11-11	8- 9- 1	9- 7- 5	10- 6- 8	11- 6-11	12- 7-12	13- 6-15	14- 5-12	15- 4-12	16- 3-15	17- 3- 6
10	7- 9-10	8- 6- 6	9- 4- 1	10- 2- 9	11- 2- 2	12- 2- 9	13- 3-15	14- 3- 0	15- 1-11	16- 0-10	16-11-11	17-11- 0
11	8- 4- 1	9- 1- 2	9-11- 0	10- 9-14	11- 9-11	12-10- 6	14- 0- 0	14-10-15	15- 9-10	16- 8- 7	17- 7- 7	18- 6- 8
12	8-10- 8	9- 7-13	10- 6- 0	11- 5- 1	12- 5- 3	13- 6- 3	14- 8- 1	15- 6-14	16- 5- 8	17- 4- 4	18- 3- 1	19- 2- 0
13	9- 4-15	10- 2- 8	11- 1- 0	12- 0- 5	13- 0-10	14- 1-14	15- 4- 0	16- 2-12	17- 1- 5	17-11-15	18-10-10	19- 9- 6
14	9-11- 6	10- 9- 4	11- 7-15	12- 7- 9	13- 8- 1	14- 9- 9	15-11-15	16-10- 9	17- 9- 2	18- 7-11	19- 6- 4	20- 4-13
15	10- 5-12	11- 3-15	12- 2-15	13- 2-12	14- 3- 8	15- 5- 3	16- 7-12	17- 6- 2	18- 4- 9	19- 2-15	20- 1- 5	20-11-11
16	11- 0- 3	11-10- 9	12- 9-13	13- 9-14	14-10-14	16- 0-12	17- 3- 7	18- 1-10	18-11-14	19-10- 1	20- 8- 5	21- 6- 8
17	11- 6- 9	12- 5- 3	13- 4-11	14- 5- 0	15- 6- 3	16- 8- 5	17-11- 0	18- 9- 1	19- 7- 2	20- 5- 2	21- 3- 3	22- 1- 4
18	12- 0-15	12-11-13	13-11- 8	15- 0- 1	16- 1- 7	17- 3-13	18- 6- 9	19- 4- 7	20- 2- 5	21- 0- 2	21-10- 0	22- 7-14
19	12- 7- 5	13- 6- 6	14- 6- 5	15- 7- 1	16- 8-11	17-11- 4	19- 2- 0	19-11-11	20- 9- 6	21- 7- 2	22- 4-13	23- 2- 8
20	13- 1-10	14- 1- 0	15- 1- 1	16- 2- 1	17- 3-14	18- 6-11	19- 9- 6	20- 6-14	21- 4- 7	22- 2- 0	22-11- 8	23- 9- 1
21	13- 8- 0	14- 7- 8	15- 7-14	16- 9- 0	17-11- 1	19- 2- 0	20- 4-11	21- 2- 1	21-11- 7	22- 8-13	23- 6- 3	24- 3- 9
22	14- 3- 6	15- 3- 3	16- 3-12	17- 5- 2	18- 7- 6	19-10- 9	21- 1- 2	21-10- 5	22- 7- 8	23- 4-11	24- 1-14	24-11- 2

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
23	14-10-12	15-10-12	16-11- 9	18- 1- 3	19- 3-10	20- 7- 0	21- 9- 7	22- 6- 8	23- 3- 8	24- 0- 8	24- 9- 8	25- 6- 9
24	15- 6- 2	16- 6- 6	17- 7- 6	18- 9- 3	19-11-14	21- 3- 6	22- 5-11	23- 2- 9	23-11- 6	24- 8- 3	25- 5- 1	26- 1-14
25	16- 1- 7	17- 1-14	18- 3- 2	19- 5- 2	20- 8- 0	21-11-12	23- 1-14	23-10- 8	24- 7- 3	25- 3-13	26- 0- 8	26- 9- 2
26	16- 8-12	17- 9- 6	18-10-13	20- 1- 0	21- 4- 1	22- 7-15	23- 9-15	24- 6- 6	25- 2-14	25-11- 6	26- 7-13	27- 4- 5
27	17- 4- 0	18- 4-14	19- 6- 8	20- 8-14	22- 0- 1	23- 4- 2	24- 5-14	25- 2- 3	25-10- 8	26- 6-12	27- 3- 1	27-11- 6
28	17-11- 4	19- 0- 5	20- 2- 1	21- 4-10	22- 8- 0	24- 0- 3	25- 1-12	25- 9-14	26- 6- 0	27- 2- 2	27-10- 4	28- 6- 6
29	18- 6- 7	19- 7-11	20- 9-10	22- 0- 6	23- 3-14	24- 8- 3	25- 9- 8	26- 5- 7	27- 1- 6	27- 9- 6	28- 5- 5	29- 1- 4
30	19- 1-10	20- 3- 0	21- 5- 2	22- 8- 0	23-11-11	25- 4- 2	26- 5- 3	27- 0-15	27- 8-12	28- 4- 8	29- 0- 4	29- 8- 0
31	19- 8-12	20-10- 5	22- 0- 9	23- 3- 9	24- 7- 6	26- 0- 0	27- 0-13	27- 8- 6	28- 3-15	28-11- 9	29- 7- 2	30- 2-11
32	20- 3-13	21- 5- 9	22- 7-15	23-11- 2	25- 3- 1	26- 7-12	27- 8- 5	28- 3-11	28-11- 1	29- 6- 8	30- 1-14	30- 9- 4
33	20-10-14	22- 0-12	23- 3- 5	24- 6- 9	25-10-10	27- 3- 7	28- 3-11	28-10-15	29- 6- 2	30- 1- 5	30- 8- 9	31- 3-12
34	21- 5-14	22- 7-14	23-10- 9	25- 1-15	26- 6- 1	27-11- 0	28-11- 0	29- 6- 1	30- 1- 1	30- 8- 1	31- 3- 1	31-10- 1
35	22- 0-13	23- 2-15	24- 5-12	25- 9- 4	27- 1- 8	28- 6- 8	29- 6- 4	30- 1- 1	30- 7-14	31- 2-11	31- 9- 8	32- 4- 5
36	22- 7-11	23- 9-15	25- 0-14	26- 4- 8	27- 8-14	29- 1-15	30- 1- 6	30- 8- 0	31- 2-10	31- 9- 4	32- 3-13	32-10- 7
37	23- 2- 9	24- 4-15	25- 7-15	26-11-11	28- 4- 2	29- 9- 5	30- 8- 7	31- 2-14	31- 9- 4	32- 3-10	32-10- 1	33- 4- 7
38	23- 9- 6	24-11-14	26- 3- 0	27- 6-12	28-11- 5	30- 4- 9	31- 3- 6	31- 9- 9	32- 3-12	32- 9-15	33- 4- 2	33-10- 5
39	24- 4- 3	25- 6-11	26- 9-15	28- 1-13	29- 6- 7	30-11-12	31-10- 4	32- 4- 4	32-10- 3	33- 4- 3	33-10- 2	34- 4- 2

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
40	24-10-14	26- 1- 8	27- 4-13	28- 8-12	30- 1- 7	31- 6-13	32- 5- 0	32-10-12	33- 4- 8	33-10- 4	34- 4- 0	34- 9-13
41	25- 5- 8	26- 8- 4	27-11-10	29- 3-10	30- 8- 6	32- 1-13	32-11-11	33- 5- 3	33-10-12	34- 4- 4	34- 9-13	35- 3- 5
42	26- 0- 2	27- 2-14	28- 6- 5	29-10- 7	31- 3- 3	32- 8-11	33- 6- 3	33-11- 8	34- 4-13	34-10- 2	35- 3- 7	35- 8-12
43	26- 6-11	27- 9- 8	29- 0-15	30- 5- 1	31- 9-15	33- 3- 8	34- 0-10	34- 5-12	34-10-13	35- 3-15	35- 9- 0	36- 2- 2
44	27- 1- 2	28- 4- 0	29- 7- 9	30-11-11	32- 4- 9	33-10- 2	34- 7- 0	34-11-14	35- 4-12	35- 9-10	36- 2- 8	36- 7- 6
45	28- 9- 1	30- 0- 0	31- 3-10	32- 7-14	34- 0-13	35- 6- 7	36- 2- 5	36- 6- 8	36-10-10	37- 2-13	37- 6-15	37-11- 2
46	30- 4- 4	31- 7- 4	32-10-14	34- 3- 2	35- 8- 0	37- 1-10	37- 8-11	38- 0- 2	38- 3- 9	38- 7- 0	38-10- 7	39- 1-14
47	31-10-11	33- 1-10	34- 5- 2	35- 9- 5	37- 2- 3	38- 7-11	39- 1-14	39- 4-10	39- 7- 6	39-10- 2	40- 0-14	40- 3-10
48	33- 4- 6	34- 7- 2	35-10- 8	37- 2- 8	38- 7- 2	40- 0- 8	40- 5-14	40- 7-15	40-10- 1	41- 0- 3	41- 2- 4	41- 4- 6
49	34- 9- 4	35-11-12	37- 2-13	38- 6- 9	39-10-15	41- 4- 0	41- 8-10	41-10- 2	41-11- 9	42- 1- 1	42- 2- 9	42- 4- 1
50	36- 1- 5	37- 3- 7	38- 6- 2	39- 9- 8	41- 1- 8	42- 6- 2	42-10- 0	42-11- 0	42-11-15	43- 0-15	43- 1-14	43- 2-14
51	37- 4- 8	38- 6- 3	39- 8- 7	40-11- 5	42- 2-12	43- 6-14	43-10- 1	43-10-10	43-11- 3	43-11-12	44- 0- 5	44- 0-13
52	38- 6-14	39- 8- 1	40- 9-12	41-11-15	43- 2-12	44- 6- 3	44- 8-13	44- 9- 1	44- 9- 5	44- 9- 9	44- 9-13	44-10- 1
53	40- 5- 1	41- 5- 2	42- 5-10	43- 6-10	44- 8- 1	45-10- 1	46- 0- 0	46- 0- 1	46- 0- 1			
54	42- 0-11	42-11- 8	43-10-10	44-10- 3	45-10- 1	46-10- 5	46-11-15					
55	43- 6- 4	44- 3-11	45- 1- 6	45-11- 5	46- 9- 9	47- 8- 1						
56	44- 9-11	45- 5-12	46- 1-15	46-10- 6	47- 7- 0	48- 3-13						

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
57	45-11- 0	46- 5-12	47- 0-10	47- 7-10	48- 2-11	48- 9-14				48- 9-11	48- 9-11	48- 9-10
58	46-10- 8	47- 4- 1	47- 9-12	48- 3- 6	48- 9- 0	49- 2-10						
59	47- 8- 2	48- 0-12	48- 5- 5	48- 9-14	49- 2- 8	49- 7- 2						
60	48- 4- 2	48- 7-12	48-11- 7	49- 3- 1	49- 6-13	49-10-10						
61	48-10-13	49- 1- 7	49- 4- 2	49- 6-12	49- 9- 6	50- 0- 0						
62	49- 4- 4	49- 5-15	49- 7- 9	49- 9- 1	49-10- 9	50- 0- 0						
63	49- 8- 7	49- 9- 6	49-10- 4	49-10-15	49-11- 9	50- 0- 0						
64	49-11- 2	49-11- 8	49-11-13	50- 0- 0	50- 0- 1	50- 0- 0						
65	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
66	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
67	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
68	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
69	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
70	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
71	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
72	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
73	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						

DATE: 11/04/78
JOB NO. C7-1000
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WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
74	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
75	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
76	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
77	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
78	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
79	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
80	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
81	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
82	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
83	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
84	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
85	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
86	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
87	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
88	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
89	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
90	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						

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FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
91	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
92	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
93	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
94	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
95	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
96	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
97	49-11-10	49-11-14	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0						
98	49-10- 9	49-11- 3	49-11- 8	49-11-12	49-11-14	49-11-15						
99	49- 8-14	49- 9-12	49-10- 7	49-10-14	49-11- 3	49-11- 6						
100	49- 6-10	49- 7-13	49- 8-12	49- 9- 7	49- 9-15	49-10- 6						
101	49- 3-13	49- 5- 5	49- 6- 9	49- 7- 8	49- 8- 4	49- 8-13						
102	49- 2-10	49- 4- 4	49- 5- 9	49- 6- 9	49- 7- 8	49- 8- 3						
103	49- 1- 4	49- 3- 0	49- 4- 6	49- 5- 9	49- 6- 9	49- 7- 7						
104	48-11-14	49- 1-12	49- 3- 4	49- 4- 9	49- 5-11	49- 6-10						
105	48-10- 7	49- 0- 7	49- 2- 2	49- 3- 8	49- 4-11	49- 5-12						
106	48- 8-15	48-11- 1	49- 0-13	49- 2- 5	49- 3-10	49- 4-12						
107	48- 7- 4	48- 9- 7	48-11- 4	49- 0-14	49- 2- 4	49- 3- 9						

DATE: 11/04/78
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WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
108	48- 5- 7	48- 7-11	48- 9-10	48-11- 5	49- 0-14	49- 2- 5						
109	48- 3- 9	48- 6- 0	48- 8- 0	48- 9-13	48-11- 8	49- 1- 1						
110	48- 1-12	48- 4- 4	48- 6- 7	48- 8- 6	48-10- 2	48-11-12						
111	47-11-14	48- 2- 8	48- 4-12	48- 6-12	48- 8-10	48-10- 5						
112	47- 9-14	48- 0- 9	48- 2-15	48- 5- 1	48- 7- 1	48- 8-13						
113	47- 7-11	47-10- 8	48- 0-15	48- 3- 3	48- 5- 4	48- 7- 3						
114	47- 5- 8	47- 8- 6	47-10-15	48- 1- 4	48- 3- 7	48- 5- 8						
115	47- 3- 4	47- 6- 2	47- 8-13	47-11- 4	48- 1- 9	48- 3-11						
116	47- 0-15	47- 3-14	47- 6-10	47- 9- 3	47-11-10	48- 1-13						
117	46-10- 9	47- 1- 9	47- 4- 6	47- 7- 1	47- 9- 9	47-11-14						
118	46- 8- 3	46-11- 4	47- 2- 2	47- 4-14	47- 7- 7	47- 9-14						
119	46- 5-13	46- 8-14	46-11-14	47- 2-10	47- 5- 5	47- 7-12						
120	46- 3- 7	46- 6- 9	46- 9- 9	47- 0- 6	47- 3- 1	47- 5-10						
121	46- 1- 0	46- 4- 3	46- 7- 3	46-10- 1	47- 0-13	47- 3- 7						
122	45-10-11	46- 1-14	46- 4-15	46- 7-13	46-10-10	47- 1- 6						
123	45- 8- 3	45-11- 8	46- 2-10	46- 5- 9	46- 8- 7	46-11- 4						
124	45- 5-12	45- 9- 2	46- 0- 5	46- 3- 5	46- 6- 4	46- 9- 2						

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	50- 0- 0 FT IN 16	52- 0- 0 FT IN 16	54- 0- 0 FT IN 16	56- 0- 0 FT IN 16	58- 0- 0 FT IN 16	60- 0- 0 FT IN 16	62- 0- 0 FT IN 16	64- 0- 0 FT IN 16	66- 0- 0 FT IN 16	68- 0- 0 FT IN 16	70- 0- 0 FT IN 16	72- 0- 0 FT IN 16
125	45- 3- 6	45- 6-12	45-10- 0	46- 1- 1	46- 4- 1	46- 7- 0						
126	45- 0-14	45- 4- 5	45- 7- 9	45-10-11	46- 1-12	46- 4-13						
127	44-10- 8	45- 1-15	45- 5- 3	45- 8- 5	45-11- 7	46- 2- 9						
128	44- 7-15	44-11- 7	45- 2-12	45- 6- 0	45- 9- 3	46- 0- 5						
129	44- 5- 8	44- 9- 0	45- 0- 5	45- 3-10	45- 6-13	45-10- 0						
130	44- 3- 4	44- 6-12	44-10- 0	45- 1- 3	45- 4- 7	45- 7-11						
131	44- 0-15	44- 4- 6	44- 7-10	44-10-13	45- 2- 1	45- 5- 6						
132	43-10-13	44- 2- 4	44- 5- 6	44- 8- 8	44-11-11	45- 3- 0						
133	43- 4-14	43- 8- 8	44- 0- 0	44- 3- 7	44- 6-11	44- 9-15	45- 1- 3	45- 4- 7	45- 7-11	45-10-15	46- 2- 3	46- 5- 7
134	42-11- 4	43- 2-15	43- 6- 7	43- 9-15	44- 1- 5	44- 4-11	44- 8- 0	44-11- 6	45- 2-11	45- 6- 0	45- 9- 6	46- 0-11
135		42- 9- 1	43- 0-10	43- 4- 3	43- 7-12	43-11- 4	44- 2-11	44- 6- 2	44- 9- 9	45- 1- 0	45- 4- 7	45- 7-14
136		21- 1-14	42- 6-14	42-10- 7	43- 2- 1	43- 5-11	43- 9- 5	44- 0-15	44- 4- 8	44- 8- 1	44-11-10	45- 3- 3
137			42- 0-12	42- 4- 8	42- 8- 4	43- 0- 0	43- 3-12	43- 7- 8	43-11- 4	44- 2-15	44- 6-11	44-10- 5
138				41-10- 5	42- 2- 4	42- 6- 2	42-10- 1	43- 2- 0	43- 5-14	43- 9-12	44- 1-10	44- 5- 7
139				41- 3- 9	41- 7-11	41-11-14	42- 4- 1	42- 8- 3	43- 0- 5	43- 4- 7	43- 8- 8	44- 0- 8

RED. 6X DATE 7-81
MA. NO.H-22 BLDR. NO.05-00-03
FRAME NO.11

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 33

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	74- 0- 0 FT IN 16	76- 0- 0 FT IN 16	78- 0- 0 FT IN 16
3	14- 4- 6	15- 5-10	
4	15- 0- 6	16- 1- 7	
5	15- 8- 5	16- 9- 2	
6	16- 4- 3	17- 4-12	
7	16-11-14	18- 0- 4	
8	17- 7- 8	18- 7-10	
9	18- 3- 0	19- 2-14	
10	18-10- 6	19-10- 0	
11	19- 5-12	20- 5- 1	
12	20- 1- 0	21- 0- 1	
13	20- 8- 3	21- 7- 0	
14	21- 3- 7	22- 2- 0	
15	21-10- 2	22- 8- 8	
16	22- 4-11	23- 2-15	
17	22-11- 4	23- 9- 5	
18	23- 5-12		
19	24- 0- 3		

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JOB NO. C7-1000
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WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 32

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	74- 0- 0 FT IN 16	76- 0- 0 FT IN 16	78- 0- 0 FT IN 16
-14			3- 9- 0
-13		3- 5-15	4- 9-14
-12	3- 3- 3	4- 6- 9	5- 8-15
-11	4- 2-12	5- 4-13	6- 7- 7
-10	5- 0- 8	6- 2-10	7- 5- 9
-9	5-10- 4	7- 0- 8	8- 3- 2
-8	6- 7- 9	7- 9-14	9- 0- 8
-7	7- 4- 8	8- 6-13	9- 9- 9
-6	8- 1- 3	9- 3- 7	10- 6- 4
-5	8- 9-12	10- 0- 0	11- 2-13
-4	9- 6- 5	10- 8- 7	11-11- 4
-3	10- 2-12	11- 4-14	12- 7-10
-2	10-11- 3	12- 1- 3	13- 3-14
-1	11- 7- 9	12- 9- 7	14- 0- 1
0	12- 4- 0	13- 5-11	
1	13- 0- 3	14- 1-11	
2	13- 8- 5	14- 9-12	

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WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 34

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	74- 0- 0 FT IN 16	76- 0- 0 FT IN 16	78- 0- 0 FT IN 16
20	24- 6-10		
21	25- 0-15		
22	25- 8- 5		
23	26- 3- 9		
24	26-10-12		
25	27- 5-13		
26	28- 0-13		
27	28- 7-11		
28	29- 2- 8		
29	29- 9- 3		
30	30- 3-12		
31	30-10- 4		
32	31- 4-11		
33	31-10-15		
34	32- 5- 2		
35	32-11- 2		
36	33- 5- 1		

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JOB NO. C7-1000
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WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 35

WATERMAN LASH

WATERLINE HALF BREADTHS

FRM.	74- 0- 0 FT IN 16	76- 0- 0 FT IN 16	78- 0- 0 FT IN 16
37	33-10-14		
38	34- 4- 8		
39	34-10- 1		
40	35- 3- 9		
41	35- 8-14		
57	48- 9- 9	48- 9- 9	48- 9- 8
133	46- 8-11	46-11-15	47- 3- 3
134	46- 4- 1	46- 7- 6	46-10-11
135	45-11- 6	46- 2-13	46- 6- 4
136	45- 6-12	45-10- 4	46- 1-12
137	45- 2- 0	45- 5-11	45- 9- 5
138	44- 9- 4	45- 1- 0	45- 4-12
139	44- 4- 7	44- 8- 6	45- 0- 3

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 12

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JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 37

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
-4	1- 3- 5	2- 7- 0	67- 4-12	71- 3- 3	74- 9-12	78- 1- 3						
-4	15- 0-13	12- 6-14										
-4	57- 5-10	62-11- 8										
-3	0-10- 3	2- 2- 4	65-10- 9	69-11- 1	73- 7- 2	76-11-11						
-3	15- 4-11	12- 9-13										
-3	55- 3-13	61- 2- 9										
-2	0- 7- 4	1-11- 8	64- 3-11	68- 6- 6	72- 3-15	75-10- 1						
-2	15- 7- 1	12-11-13										
-2	53- 0- 6	59- 5- 6										
-1	0- 5-13	1-10- 3	62- 8- 3	67- 0-15	71- 0- 3	74- 7-13	77-11-15					
-1	15- 8- 0	13- 0-10										
-1	50- 6-11	57- 7- 7										
0	0- 5- 5	1- 9-11	6- 2-15	65- 6- 8	69- 7-13	73- 4-12	76-10-12					
0	15- 8-15	13- 1- 2	8- 0- 3									
0	48- 0- 9	55- 9- 1	61- 0-10									
1	0- 5- 2	1- 9-10	6- 0- 5	63-11-13	68- 2-15	72- 1- 8	75- 9- 0					
1	15- 9-13	13- 1- 1	8- 6- 1									
1	45- 4- 7	53-10- 1	59- 4-15									

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JOB NO. C7-1000
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WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 36

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
-15	78- 6- 7											
-14	76- 7-15	78- 4- 1										
-13	74- 9- 0	76- 8- 7										
-12	72- 9- 3	75- 1- 3	78- 4-12									
-11	70- 9- 2	73- 7- 5	77- 0- 1									
-10	68- 8- 3	72- 1-14	75- 7-10	78-10- 5								
-9	66- 9- 9	70- 8-10	74- 3- 0	77- 6-15								
-8	6- 6-11	69- 3- 4	72-11- 0	76- 3- 9								
-8	10- 3-10											
-8	65- 0- 5											
-7	3-10- 2	6- 5-15	71- 7- 3	75- 0-11	78- 3-15							
-7	12- 9-13	9- 3- 9										
-7	63- 3-11	67- 9- 3										
-6	2- 6-14	4- 1-11	70- 2-12	73- 9-15	77- 1-15							
-6	13-10-12	11- 4- 8										
-6	61- 5- 6	66- 2-11										
-5	1- 9-14	3- 2-12	68-10- 1	72- 6-15	76- 0- 0							
-5	14- 6-15	12- 2- 8										

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WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 38

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
2	0- 4-15	1- 9- 7	5-10- 3	62- 5- 6	66- 9- 4	70- 9-13	74- 6-11					
2	15-11- 0	13- 1- 5	8- 7-15									
2	42- 7- 0	51-10- 6	57- 9- 5									
3	0- 4-13	1- 9- 3	5- 8-11	60-11- 4	65- 3- 3	69- 5- 7	73- 3-15	76-11- 4				
3	16- 0- 8	13- 1-10	8- 9-10									
3	39- 9- 0	49-10- 5	56- 1-12									
4	0- 4-11	1- 9- 0	5- 7- 8	59- 5- 9	63- 8- 6	68- 0- 4	72- 0- 6	75- 9- 6				
4	16- 2- 6	13- 1-15	8-10- 3									
4	36-11- 3	47- 9-11	54- 5-13									
5	0- 4- 9	1- 8-13	5- 6-11	57-11-14	62- 2- 5	66- 6- 9	70- 8- 5	74- 6-15				
5	16- 4-10	13- 2- 7	8-10- 7									
5	34- 1- 4	45- 8- 6	52- 9-10									
6	0- 4- 7	1- 8-10	5- 6- 0	56- 6- 3	60-10- 4	65- 0- 8	69- 3-11	73- 3-14	77- 1- 8			
6	16- 7- 8	13- 3- 0	8-10-10									
6	31- 3- 7	43- 6-13	51- 1- 5									
7	0- 4- 5	1- 8- 8	5- 5- 8	55- 0- 7	59- 6- 4	63- 6- 2	67-10-10	72- 0- 4	75-11- 8			
7	16-11- 4	13- 3-11	8-10-10									
7	28- 8- 0	41- 5-10	49- 4-11									

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MOLD LOFT OFFSETS

PAGE NO. 39

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
8	0- 4- 3	1- 8- 5	5- 5- 2	53- 6-10	58- 2- 4	62- 0-12	66- 5- 2	70- 8- 3	74- 9- 0			
8	17- 4- 3	13- 4-10	8-10- 9									
8	26- 2-13	39- 5- 1	47- 7-13									
9	0- 4- 2	1- 8- 2	5- 5- 2	52- 0-12	56-10- 4	60-10- 0	64-11- 6	69- 3-10	73- 5-14			
9	17-11- 6	13- 5-12	8-10-10									
9	24- 1-11	37- 5- 2	45-10-10									
10	0- 4- 0	1- 8- 0	5- 5- 3	50- 6-12	55- 6- 5	59- 7- 4	63- 5- 5	67-10-10	72- 2- 3	76- 4- 1		
10	19- 0-15	13- 7- 3	8-10-13									
10	21-11- 1	35- 6- 2	44- 1- 8									
11	0- 3-14	1- 7-14	5- 5- 6	49- 0- 8	54- 2- 5	58- 4- 9	62- 0- 0	66- 5- 4	70- 9-15	75- 1- 5		
11		13- 8-14	8-11- 2									
11		33- 7-13	42- 4- 9									
12	0- 3-13	1- 7-11	5- 5- 6	47- 6- 4	52-10- 3	57- 1-15	60-10- 4	64-11- 9	69- 5- 4	73- 9-14		
12		13-11- 0	8-11-11									
12		31- 9-15	40- 8- 4									
13	0- 3-12	1- 7- 9	5- 5- 4	46- 0- 0	51- 5-15	55-11- 5	59- 8-11	63- 5-12	68- 0- 2	72- 5-14		
13		14- 1- 9	9- 0- 7									
13		30- 0-10	39- 0-13									

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JOB NO. C7-1000
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MOLD LOFT OFFSETS

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2-0-0 FT IN 16	4-0-0 FT IN 16	6-0-0 FT IN 16	8-0-0 FT IN 16	10-0-0 FT IN 16	12-0-0 FT IN 16	14-0-0 FT IN 16	16-0-0 FT IN 16	18-0-0 FT IN 16	20-0-0 FT IN 16	22-0-0 FT IN 16	24-0-0 FT IN 16
20	0- 2-13	1- 5-11	5- 0- 3	36- 0- 6	42- 1- 8	47- 4- 9	51-10- 0	55- 8- 5	59- 1- 6	62- 6-10	67- 7- 0	72- 7- 6
20			10- 6- 7									
20			28- 8-11									
21	0- 2-10	1- 5- 3	4-10- 9	34- 8-10	40-10- 1	46- 1-15	50- 8- 8	54- 7-12	58- 1- 9	61- 3- 3	66- 1- 7	71- 2-14
21			10-11- 8									
21			27- 4- 6									
22	0- 2- 6	1- 4- 9	4- 8- 6	33- 2- 9	39- 4- 8	44- 9- 1	49- 4-13	53- 5- 1	56-11-12	60- 2- 3	64- 4- 7	69- 7- 1
22			11- 6- 8									
22			25- 9- 4									
23	0- 2- 3	1- 3-13	4- 6- 0	31- 8-14	37-11- 5	43- 4- 5	48- 1- 2	52- 2- 6	55-10- 0	59- 1- 4	62- 6-12	67-10-11
23			12- 3- 0									
23			24- 1- 8									
24	0- 1-15	1- 3- 2	4- 3- 9	30- 3- 7	36- 6- 5	41-11-13	46- 9- 7	50-11-12	54- 8- 4	58- 0- 4	61- 0-11	66- 1-11
24			13- 1-11									
24			22- 4- 5									
25	0- 1-11	1- 2- 5	4- 1- 0	28-10- 4	35- 1- 8	40- 7- 7	45- 5-15	49- 9- 2	53- 6- 8	56-11- 4	60- 0- 7	64- 4- 2
25			14- 5- 1									
25			20- 2-10									

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MOLD LOFT OFFSETS

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2-0-0 FT IN 16	4-0-0 FT IN 16	6-0-0 FT IN 16	8-0-0 FT IN 16	10-0-0 FT IN 16	12-0-0 FT IN 16	14-0-0 FT IN 16	16-0-0 FT IN 16	18-0-0 FT IN 16	20-0-0 FT IN 16	22-0-0 FT IN 16	24-0-0 FT IN 16
14	0- 3-10	1- 7- 7	5- 5- 0	44- 5-13	50- 1-10	54- 8- 9	58- 7- 3	62- 0- 1	66- 6- 8	71- 1- 0	75- 7- 8	
14		14- 4-10	9- 1- 8									
14		28- 4- 5	37- 5-11									
15	0- 3- 9	1- 7- 5	5- 4-11	42-11-15	48- 9- 7	53- 5-13	57- 5-10	60-11- 6	65- 1- 8	69- 8-15	74- 4- 6	
15		14- 8- 6	9- 2-15									
15		26- 8-11	35-11- 0									
16	0- 3- 7	1- 7- 1	5- 4- 4	41- 6- 8	47- 5- 5	52- 3- 2	56- 4- 0	59-10-12	63- 8- 2	68- 4- 8	73- 0-15	
16		15- 1- 0	9- 4-14									
16		25- 2- 0	34- 4-12									
17	0- 3- 5	1- 6-13	5- 3-10	40- 1- 6	46- 1- 2	51- 0- 8	55- 2- 8	58-10- 2	62- 2- 6	66-11-11	71- 9- 1	
17		15- 7- 4	9- 7- 5									
17		23- 7-10	32-11- 2									
18	0- 3- 2	1- 6- 8	5- 2-12	38- 8-12	44- 9- 1	49- 9-14	54- 1- 0	57- 9- 7	61- 1- 0	65- 6- 7	70- 4-13	75- 3- 2
18		16- 4-14	9-10- 7									
18		21-10-15	31- 6- 1									
19	0- 3- 0	1- 6- 2	5- 1-10	37- 4- 5	43- 5- 3	48- 7- 4	52-11- 8	56- 8-14	60- 1- 3	64- 0-12	69- 0- 2	73-11- 7
19			10- 2- 2									
19			30- 1- 4									

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MOLD LOFT OFFSETS

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2-0-0 FT IN 16	4-0-0 FT IN 16	6-0-0 FT IN 16	8-0-0 FT IN 16	10-0-0 FT IN 16	12-0-0 FT IN 16	14-0-0 FT IN 16	16-0-0 FT IN 16	18-0-0 FT IN 16	20-0-0 FT IN 16	22-0-0 FT IN 16	24-0-0 FT IN 16
26	0- 1- 8	1- 1- 9	3-10- 7	27- 5- 1	33- 9- 1	39- 3- 6	44- 2- 8	48- 6-10	52- 4-12	55-10- 5	59- 0- 2	62- 5-15
27	0- 1- 4	1- 0-12	3- 7-15	25-11- 9	32- 4-13	37-11- 8	42-11- 3	47- 4- 2	51- 3- 2	54- 9- 6	57-11-14	60-11- 5
28	0- 1- 1	1- 0- 0	3- 5- 7	24- 5- 4	31- 0-13	36- 7-13	41- 8- 0	46- 1-11	50- 1- 7	53- 8- 7	56-11-11	59-11-11
29	0- 0-14	0-11- 3	3- 3- 0	22- 9- 5	29- 8-15	35- 4- 5	40- 4-15	44-11- 5	48-11-14	52- 7- 9	55-11- 7	59- 0- 2
30	0- 0-12	0-10- 7	3- 0-10	20-10-12	28- 5- 1	34- 0-15	39- 1-15	43- 9- 0	47-10- 5	51- 6-12	54-11- 4	58- 0- 8
31	0- 0- 9	0- 9-11	2-10- 6	18- 8- 2	27- 0-14	32- 9-11	37-11- 2	42- 6-12	46- 8-13	50- 5-14	53-11- 1	57- 0-15
32	0- 0- 7	0- 8-15	2- 8- 3	15- 1-14	25- 8- 1	31- 6- 8	36- 8- 6	41- 4- 9	45- 7- 5	49- 5- 2	52-10-14	56- 1- 6
33	0- 0- 5	0- 8- 4	2- 6- 2	10- 3- 1	24- 2- 0	30- 3- 7	35- 5-11	40- 2- 6	44- 5-13	48- 4- 6	51-10-12	55- 1-13
34	0- 0- 4	0- 7- 9	2- 4- 3	8- 4- 2	22- 6- 6	29- 0- 4	34- 3- 1	39- 0- 4	43- 4- 6	47- 3-10	50-10-11	54- 2- 5
35	0- 0- 3	0- 6-15	2- 2- 5	7- 1- 7	20- 9- 5	27- 8-13	33- 0- 7	37-10- 3	42- 2-15	46- 2-14	49-10-10	53- 2-13
36	0- 0- 2	0- 6- 5	2- 0- 9	6- 2-11	18-10-15	26- 4-12	31- 9-14	36- 8- 3	41- 1- 8	45- 2- 2	48-10- 8	52- 3- 6
37	0- 0- 1	0- 5-12	1-10-15	5- 6- 8	16-10-13	24-11-14	30- 7- 3	35- 6- 2	40- 0- 1	44- 1- 6	47-10- 7	51- 3-14
38	0- 0- 0	0- 5- 4	1- 9- 6	5- 0- 0	14-10- 0	23- 5-14	29- 4- 7	34- 4- 1	38-10-10	43- 0-10	46-10- 5	50- 4- 7
39	0- 0- 0	0- 4-12	1- 7-15	4- 6-10	12-10-10	21-11- 0	28- 1- 5	33- 1-14	37- 9- 3	41-11-13	45-10- 4	49- 4-15
40	0- 0- 0	0- 4- 5	1- 6- 9	4- 2- 1	11- 2- 9	20- 3-12	26- 9-13	31-11-10	36- 7-11	40-11- 0	44-10- 2	48- 5- 7
41	0- 0- 0	0- 3-15	1- 5- 5	3-10- 2	9- 9-14	18- 8- 8	25- 5- 7	30- 9- 3	35- 6- 1	39-10- 2	43- 9-15	47- 5-15
42	0- 0- 0	0- 3- 9	1- 4- 3	3- 6-11	8- 7-12	17- 1- 0	24- 0- 8	29- 6- 9	34- 4- 6	38- 9- 4	42- 9-12	46- 6- 7

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WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2-0-0 FT IN 16	4-0-0 FT IN 16	6-0-0 FT IN 16	8-0-0 FT IN 16	10-0-0 FT IN 16	12-0-0 FT IN 16	14-0-0 FT IN 16	16-0-0 FT IN 16	18-0-0 FT IN 16	20-0-0 FT IN 16	22-0-0 FT IN 16	24-0-0 FT IN 16
43	0- 0- 0	0- 3- 3	1- 3- 1	3- 3-10	7- 8- 1	15- 5-15	22- 7- 2	28- 3- 9	33- 2- 7	37- 8- 3	41- 9- 8	45- 6-15
44	0- 0- 0	0- 2-14	1- 2- 1	3- 0-15	6-10- 9	13-11-10	21- 1- 9	27- 0- 2	32- 0- 6	36- 7- 1	40- 9- 3	44- 7- 5
45	0- 0- 0	0- 2- 1	0-11- 7	2- 5-15	5- 2- 6	9-11- 9	16- 7- 4	22- 9- 3	28- 2- 4	33- 0- 8	37- 5-10	41- 6- 6
46	0- 0- 0	0- 1- 7	0- 9- 6	2- 0-13	4- 1-15	7- 5- 4	12- 5-15	18- 5-10	24- 1- 2	29- 3- 4	34- 0- 2	38- 4- 2
47	0- 0- 0	0- 1- 1	0- 7-12	1- 8-13	3- 5- 4	5-10-13	9- 5- 8	14- 5- 0	19-11- 0	25- 3- 3	30- 3-12	34-11-10
48	0- 0- 0	0- 0-12	0- 6- 7	1- 5- 9	2-10- 9	4-10- 4	7- 6- 1	11- 1-13	15-10-15	21- 1-12	26- 4- 6	31- 4- 0
49	0- 0- 0	0- 0- 8	0- 5- 5	1- 2-13	2- 5- 2	4- 0-10	6- 2- 0	8-10-14	12- 6- 8	17- 1-12	22- 3- 2	27- 5- 4
50	0- 0- 0	0- 0- 6	0- 4- 5	1- 0- 5	2- 0- 7	3- 4-13	5- 1-11	7- 3-14	10- 1- 2	13- 8- 7	18- 2-12	23- 4- 2
51	0- 0- 0	0- 0- 4	0- 3- 7	0-10- 2	1- 8- 4	2-10- 0	4- 3- 8	6- 1- 1	8- 3-11	11- 1- 4	14- 8-11	19- 3- 2
52	0- 0- 0	0- 0- 3	0- 2-11	0- 8- 0	1- 4- 6	2- 3-14	3- 6- 9	5- 0-11	6-10-13	9- 1-13	11-11-14	15- 8- 3
53	0- 0- 0	0- 0- 2	0- 1-12	0- 5- 5	0-11- 2	1- 7- 6	2- 6- 3	3- 7-12	5- 0- 5	6- 8- 6	8- 8-13	11- 3- 4
54	0- 0- 0	0- 0- 1	0- 1- 2	0- 3- 9	0- 7- 9	1- 1- 5	1- 9- 0	2- 6-13	3- 7- 2	4-10- 4	6- 4-11	8- 3- 2
55	0- 0- 0	0- 0- 1	0- 0-14	0- 2-10	0- 5- 8	0- 9- 7	1- 2-12	1- 9- 9	2- 6- 5	3- 5- 5	4- 7- 2	6- 0- 2
56	0- 0- 0	0- 0- 1	0- 0-11	0- 2- 2	0- 4- 4	0- 7- 4	0-11- 1	1- 3-12	1- 9-10	2- 5- 4	3- 3- 2	4- 3-10
57	0- 0- 0	0- 0- 1	0- 0- 9	0- 1-12	0- 3- 8	0- 5-13	0- 8-11	1- 0- 2	1- 4- 4	1- 9- 7	2- 4- 3	3- 0-15
58	0- 0- 0	0- 0- 0	0- 0- 6	0- 1- 5	0- 2-11	0- 4-10	0- 6-15	0- 9-11	1- 0-13	1- 4- 9	1- 9- 4	2- 3- 4
59	0- 0- 0	0- 0- 0	0- 0- 3	0- 0-13	0- 1-15	0- 3- 8	0- 5- 7	0- 7-12	0-10- 5	1- 1- 5	1- 4-13	1- 9- 1

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M O L D   L O F T   O F F S E T S

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WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
77	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 5	0- 0-15	0- 2- 0
78	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 2	0- 0- 8	0- 1- 1	0- 2- 2
79	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 6	0- 0-12	0- 1- 5	0- 2- 6
80	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 3	0- 0- 9	0- 1- 0	0- 1-11	0- 2-14
81	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 5	0- 0-11	0- 1- 5	0- 2- 6	0- 3-14
82	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 2	0- 0- 7	0- 1- 1	0- 2- 2	0- 3-10	0- 5-11
83	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 5	0- 1- 0	0- 2- 1	0- 3-11	0- 5-13	0- 8- 9
84	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 2	0- 0- 8	0- 1- 5	0- 2- 9	0- 4- 5	0- 6- 9	0- 9- 7	1- 0-15
85	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 1- 2	0- 2- 7	0- 4- 2	0- 6- 3	0- 8-11	0-11-10	1- 3- 1	1- 7- 3
86	0- 0- 0	0- 0- 0	0- 0- 1	0- 1- 1	0- 2-12	0- 4-11	0- 6-15	0- 9- 8	1- 0- 7	1- 3-11	1- 7- 8	1-11-14
87	0- 0- 0	0- 0- 0	0- 1- 2	0- 3- 2	0- 5- 7	0- 7-15	0-10-10	1- 1-10	1- 4-14	1- 8- 7	2- 0- 8	2- 5- 4
88	0- 0- 0	0- 0- 0	0- 4- 4	0- 6-12	0- 9- 3	1- 0- 2	1- 3- 2	1- 6- 6	1- 9-15	2- 1-13	2- 6- 3	2-11- 3
89	0- 0- 0	0- 1- 5	0- 8-14	0-11- 4	1- 1-14	1- 4-15	1- 8- 2	1-11-10	2- 3- 7	2- 7-10	3- 0- 5	3- 5-10
90	0- 0- 0	0- 4- 7	1- 1-12	1- 4- 3	1- 7- 0	1-10- 3	2- 1- 8	2- 5- 4	2- 9- 7	3- 1-15	3- 6-15	4- 0- 8
91	0- 0- 0	0- 7- 5	1- 6- 1	1- 9- 7	2- 0- 5	2- 3- 9	2- 7- 4	2-11- 5	3- 3-12	3- 8-10	4- 1-15	4- 7-13
92	0- 0- 0	0- 9- 5	1-10- 3	2- 2-15	2- 5-14	2- 9- 7	3- 1- 7	3- 5-12	3-10- 8	4- 3-11	4- 9- 5	5- 3- 9
93	0- 0- 0	0-10-14	2- 2-12	2- 9- 1	3- 0- 7	3- 4- 0	3- 8- 1	4- 0-11	4- 5-13	4-11- 5	5- 5- 3	5-11-11

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M O L D   L O F T   O F F S E T S

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WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
60	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 6	0- 1- 3	0- 2- 6	0- 4- 0	0- 5-15	0- 8- 3	0-10-12	1- 1-10	1- 4-15
61	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 9	0- 1- 6	0- 2- 9	0- 4- 3	0- 6- 1	0- 8- 4	0-10-12	1- 1- 9
62	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 2	0- 0-10	0- 1- 7	0- 2- 9	0- 4- 1	0- 5-14	0- 8- 1	0-10- 7
63	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 2	0- 0-10	0- 1- 6	0- 2- 8	0- 3-15	0- 5-12	0- 7-12
64	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 2	0- 0- 9	0- 1- 5	0- 2- 7	0- 3-14	0- 5-10
65	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 3	0- 0-10	0- 1- 6	0- 2- 8	0- 4- 0
66	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-13	0- 1-11	0- 2-14
67	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 8	0- 1- 3	0- 2- 5
68	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 1	0- 0- 6	0- 1- 0	0- 2- 1
69	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 5	0- 0-15	0- 2- 0
70	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-14	0- 1-15
71	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-14	0- 1-15
72	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-14	0- 1-15
73	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-14	0- 1-15
74	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-14	0- 1-15
75	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-14	0- 1-15
76	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 0	0- 0- 4	0- 0-14	0- 1-15

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M O L D   L O F T   O F F S E T S

PAGE NO. 46

WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
94	0- 0- 0	1- 0- 7	2- 8- 1	3- 4- 4	3- 8- 1	3-11- 3	4- 3- 6	4- 8- 6	5- 1-11	5- 7- 6	6- 1- 7	6- 8- 3
95	0- 0- 0	1- 2- 5	3- 2- 0	4- 0- 8	4- 4- 3	4- 7- 2	4-11-10	5- 4-12	5-10- 3	6- 3-15	6-10- 2	7- 5- 0
96	0- 0- 0	1- 5-13	4- 1-11	5- 3- 2	5- 7- 3	5-11- 1	6- 3- 9	6- 8- 4	7- 1- 8	7- 7- 4	8- 1-10	8- 8- 8
97	0- 0- 0	1- 9-11	5- 2-12	6- 7-14	7- 1-15	7- 5- 9	7- 9- 3	8- 1- 6	8- 6- 8	9- 0- 3	9- 6- 4	10- 0-14
98	0- 0- 0	2- 2-13	6- 7- 6	8- 5- 0	8-10-14	9- 1-11	9- 5- 0	9- 9- 4	10- 1-13	10- 6-11	11- 0- 3	11- 6- 5
99	0- 0- 0	3- 0- 7	8- 6- 0	10- 5- 7	10- 8-12	10-11- 8	11- 2-13	11- 6- 4	11-10- 2	12- 2- 7	12- 7- 6	13- 1- 1
100	0- 0- 0	4- 6- 3	11- 3-12	12- 4-13	12- 6-12	12- 9-11	13- 0- 9	13- 3-13	13- 7- 8	13-11- 9	14- 4- 3	14- 9- 7
101	0- 0- 0	8-10- 8	14- 7- 3	14- 6-14	14- 6- 8	14- 8-13	14-11- 6	15- 2- 5	15- 5- 9	15- 9- 4	16- 1- 7	16- 6- 2
102	0- 8-10	11- 8- 2	15- 7- 4	15- 3-10	15- 2- 3	15- 4- 6	15- 6-13	15- 9- 7	16- 0- 7	16- 3-15	16- 7-15	17- 0- 9
103	3- 2- 3	15- 4- 3	16- 5- 9	16- 0- 6	15-10- 0	16- 0- 1	16- 2- 4	16- 4-10	16- 7- 6	16-10-11	17- 2-10	17- 7- 2
104	6-11- 5	16-11- 9	17- 2- 2	16- 8-14	16- 6- 0	16- 7-10	16- 9-10	16-11-12	17- 2- 5	17- 5-10	17- 9- 7	18- 1-10
105	12- 8-12	18- 1- 8	17-10-13	17- 5- 7	17- 2- 0	17- 3- 5	17- 5- 0	17- 6-14	17- 9- 7	18- 0-10	18- 4- 3	18- 8- 3
106	18- 5-15	18-11- 1	18- 7- 6	18- 2- 2	17- 9-13	17-10-11	18- 0- 4	18- 2- 2	18- 4-10	18- 7- 9	18-10-15	19- 2-12
107	19- 9-15	19- 7-10	19- 3-12	18-10- 9	18- 5- 9	18- 5-13	18- 7- 7	18- 9- 7	18-11-12	19- 2- 7	19- 5-10	19- 9- 6
108	20- 6- 6	20- 4- 3	20- 0- 7	19- 7- 2	19- 1- 5	19- 1- 1	19- 2-11	19- 4-10	19- 6-12	19- 9- 4	20- 0- 6	20- 4- 2
109	21- 2-12	21- 0- 8	20- 8-13	20- 3- 8	19- 9- 2	19- 8- 5	19- 9-15	19-11-11	20- 1-11	20- 4- 3	20- 7- 4	20-10-13
110	21-10-12	21- 8- 8	21- 4-12	20-11- 8	20- 4-12	20- 3- 7	20- 5- 2	20- 6-14	20- 8-11	20-11- 0	21- 1-14	21- 5- 5

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M O L D   L O F T   O F F S E T S

PAGE NO. 47

WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
111	22- 6-13	22- 4-10	22- 0-14	21- 7- 9	21- 0-10	20-10- 9	21- 0- 4	21- 2- 1	21- 3-15	21- 6- 3	21- 8-11	21-11-12
112	23- 2-11	23- 0- 7	22- 8-12	22- 3- 7	21- 8- 8	21- 5-13	21- 7- 7	21- 9- 1	21-10-14	22- 0-15	22- 3- 6	22- 6- 6
113	23-10- 6	23- 8- 2	23- 4- 6	22-11- 1	22- 4- 3	22- 0-14	22- 2- 4	22- 3-12	22- 5- 6	22- 7- 7	22- 9-15	23- 0-15
114	24- 5-12	24- 3- 8	23-11-12	23- 6- 8	22-11- 8	22- 7-15	22- 9- 2	22-10- 7	23- 0- 0	23- 1-15	23- 4- 6	23- 7- 5
115	25- 0-13	24-10- 9	24- 6-14	24- 1- 9	23- 6- 9	23- 2-15	23- 3-13	23- 4-15	23- 6- 5	23- 8- 3	23-10- 8	24- 1- 8
116	25- 7- 6	25- 5- 2	25- 1- 6	24- 8- 1	24- 1- 2	23- 9-13	23-10- 9	23-11- 8	24- 0-12	24- 2- 7	24- 4-12	24- 7-12
117	26- 1- 7	25-11- 3	25- 7- 7	25- 2- 2	24- 7- 4	24- 4- 5	24- 4-15	24- 5-12	24- 7- 0	24- 8-12	24-11- 1	25- 2- 0
118	26- 6-15	26- 4-11	26- 0-15	25- 7-10	25- 0-11	24-10- 6	24-11- 2	25- 0- 1	25- 1- 6	25- 3- 2	25- 5- 7	25- 8- 6
119	26-11- 8	26- 9- 4	26- 5- 8	26- 0- 4	25- 5- 6	25- 4- 3	25- 4-15	25- 6- 0	25- 7- 6	25- 9- 2	25-11- 7	26- 2- 6
120	27- 3- 5	27- 1- 2	26- 9- 6	26- 4- 1	25- 9- 2	25- 9-14	25-10-13	26- 0- 0	26- 1- 7	26- 3- 2	26- 5- 7	26- 8- 6
121	27- 6- 3	27- 3-15	27- 0- 3	26- 6-15	26- 0- 4	26- 3-10	26- 4-11	26- 6- 0	26- 7- 6	26- 9- 2	26-11- 6	27- 2- 5
122	27- 7-13	27- 5- 9	27- 1-13	26- 8- 9	26- 7- 6	26- 8-13	26-10- 0	26-11- 4	27- 0-11	27- 2- 7	27- 4-11	27- 7-11
123	27- 8-10	27- 6- 7	27- 2-11	26- 9- 7	27- 0-12	27- 1-14	27- 3- 2	27- 4- 7	27- 5-15	27- 7-11	27-10- 0	28- 1- 0
124	27- 8-14	27- 6-10	27- 2-14	26- 9-10	27- 5-10	27- 6-13	27- 8- 2	27- 9- 8	27-11- 0	28- 0-13	28- 3- 2	28- 6- 2
125	27- 8- 7	27- 6- 3	27- 2- 7	26- 9- 2	27-10- 9	27-11-13	28- 1- 2	28- 2- 9	28- 4- 2	28- 5-15	28- 8- 4	28-11- 5
126	27- 7- 4	27- 5- 0	27- 1- 4	27- 7-13	28- 3- 7	28- 4-10	28- 6- 0	28- 7- 8	28- 9- 2	28-10-15	29- 1- 4	29- 4- 5
127	27- 5- 8	27- 3- 5	26-11- 9	28- 4-11	28- 8- 6	28- 9- 9	28-10-14	29- 0- 5	29- 1-14	29- 3-13	29- 6- 4	29- 9- 7

RED. 6X DATE 7-81 MA. NO. H-22 BLDR. NO. 05-00-03 FRAME NO. 15

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WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
22	74- 9-11											
23	73- 2- 9											
24	71- 6-14											
25	69-10-10											
26	68- 1-14	73- 9-12										
27	66- 4- 7	72- 1-13										
28	64- 6- 5	70- 5- 4										
29	62- 7- 8	68- 8- 0	74- 8- 9									
30	60-11- 1	66-10- 2	73- 0- 5									
31	60- 0- 1	64-11- 7	71- 3- 7									
32	59- 1- 0	63- 0- 0	69- 5-14									
33	58- 2- 1	60-11-13	67- 7- 9	74- 3- 8								
34	57- 3- 1	60- 1- 6	65- 8- 6	72- 6- 9								
35	56- 4- 2	59- 2-15	63- 8- 4	70- 8-12								
36	55- 5- 3	58- 4- 8	61- 6-15	68-10- 1								
37	54- 6- 4	57- 6- 1	60- 3-10	66-10- 5								
38	53- 7- 6	56- 7-11	59- 5-12	64- 9- 5	72- 6- 7							

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WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	2- 0- 0 FT IN 16	4- 0- 0 FT IN 16	6- 0- 0 FT IN 16	8- 0- 0 FT IN 16	10- 0- 0 FT IN 16	12- 0- 0 FT IN 16	14- 0- 0 FT IN 16	16- 0- 0 FT IN 16	18- 0- 0 FT IN 16	20- 0- 0 FT IN 16	22- 0- 0 FT IN 16	24- 0- 0 FT IN 16
128	27- 3- 9	27- 1- 5	26- 9- 9	28-11- 4	29- 1- 3	29- 2- 7	29- 3-12	29- 5- 2	29- 6-11	29- 8-11	29-11- 3	30- 2- 7
129	27- 1- 2	26-10-14	28- 3- 2	29- 4-12	29- 5-15	29- 7- 2	29- 8- 8	29- 9-15	29-11- 9	30- 1-10	30- 4- 3	30- 7- 7
130	26- 9-13	26- 7- 9	29- 1-12	29- 9- 7	29-10- 9	29-11-13	30- 1- 4	30- 2-11	30- 4- 6	30- 6- 8	30- 9- 2	31- 0- 6
131	26- 4-15	27- 9-15	29- 9-11	30- 2- 0	30- 3- 3	30- 4- 7	30- 5-13	30- 7- 4	30- 9- 0	30-11- 3	31- 1-14	31- 5- 3
132	26- 6-13	29- 1-11	30- 4- 1	30- 6- 8	30- 7-12	30- 9- 1	30-10- 7	30-11-15	31- 1-12	31- 3-14	31- 6- 8	31- 9-14
133	26- 9- 7	26- 9-10	26- 9-13	26-10- 1	26-10- 9	26-11- 1	26-11- 8	26-11-13	27- 0- 1	27- 0- 6	27- 1- 2	27- 2- 7
134	49- 8- 2	49- 8- 2	49- 8- 3	49- 8- 3	49- 8- 3	49- 8- 3	49- 8- 3	49- 8- 3	49- 8- 3	49- 8- 3	49- 8- 4	49- 8- 4
135	50-10- 0	50-10- 1	50-10- 1	50-10- 1	50-10- 1	50-10- 1	50-10- 1	50-10- 1	50-10- 2	50-10- 2	50-10- 2	50-10- 2
136	51-11-15	51-11-15	51-11-15	51-11-15	51-11-15	51-11-15	51-11-15	52- 0- 0	52- 0- 0	52- 0- 0	52- 0- 0	52- 0- 0
137	53- 1-13	53- 1-13	53- 1-13	53- 1-13	53- 1-13	53- 1-13	53- 1-14	53- 1-14	53- 1-14	53- 1-14	53- 1-14	53- 1-14
138	54- 3-11	54- 3-11	54- 3-11	54- 3-11	54- 3-11	54- 3-12	54- 3-12	54- 3-12	54- 3-12	54- 3-12	54- 3-12	54- 3-13
139	55- 5-14	55- 5-14	55- 5-15	55- 5-15	55- 5-15	55- 5-15	55- 5-15	55- 6- 0	55- 6- 0	55- 6- 0	55- 6- 0	55- 6- 0

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MOLD LOFT OFFSETS

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WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
39	52- 8- 7	55- 9- 5	58- 7-13	62- 7- 0	70- 7- 7							
40	51- 9- 9	54-10-15	57-10- 0	60- 6-15	68- 7- 3							
41	50-10-11	54- 0-10	57- 0- 2	59- 9- 9	66- 5- 8							
42	49-11-13	53- 2- 5	56- 2- 5	59- 0- 3	64- 2- 2	73- 2- 9						
43	49- 0-14	52- 3-15	55- 4- 9	58- 2-14	61- 8-15	71- 2- 0						
44	48- 1-15	51- 5-10	54- 6-11	57- 5- 9	60- 2- 7	68-11-13						
45	45- 3- 5	48- 9- 1	51-11-15	55- 0- 8	57-10-14	60-10- 6	72- 5- 3					
46	42- 3-14	46- 0- 0	49- 5- 1	52- 7- 7	55- 7- 8	58- 5- 8	63-11- 4					
47	39- 2-13	43- 1-15	46- 9- 9	50- 2- 2	53- 4- 2	56- 3-14	59- 1-10	69- 4- 7				
48	35-11- 4	40- 2- 1	44- 0-14	47- 8- 3	51- 0- 9	54- 2- 5	57- 1-13	59-11- 5				
49	32- 4- 8	36-11- 8	41- 2- 3	45- 0-15	48- 8- 3	52- 0- 7	55- 2- 2	58- 1- 8	66- 6- 8			
50	28- 6- 4	33- 5- 8	38- 0-10	42- 3- 8	46- 2- 7	49- 9-12	53- 2- 2	56- 3-13	59- 3- 4			
51	24- 5- 3	29- 7-12	34- 7- 8	39- 3- 3	43- 6- 8	47- 5-11	51- 1- 4	54- 5-13	57- 7-12	68-11-12		
52	20- 3-11	25- 6-13	30-10- 4	35-11- 0	40- 7- 8	44-11- 6	48-11- 1	52- 7- 1	56- 0- 1	59- 2- 8		
53	14- 6-10	18- 9- 7	23-11- 8	29- 6- 0	34-11-13	40- 1-12	44-10- 2	49- 1-11	53- 1- 5	56- 9-11	60- 3- 5	
54	10- 7- 1	13- 6-15	17- 5-14	22- 6- 0	28- 3- 7	34- 3- 3	39-11-12	45- 1-11	49-10- 6	54- 2-13	58- 3-13	
55	7- 8-15	9-10-14	12- 8- 2	16- 3-15	21- 2- 2	27- 2- 8	33- 9- 9	40- 2- 6	45-11- 6	51- 2-12	56- 1-10	

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WATERMAN LASH

BUTTOCK HEIGHTS

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
56	5- 7- 4	7- 2-12	9- 3- 1	11-10- 6	15- 4- 1	20- 1- 2	26- 5- 4	33- 9- 9	41- 0-10	47- 6- 7	53- 6- 5	59- 1-11
57	4- 0- 5	5- 2-14	6- 9- 4	8- 8- 5	11- 2- 4	14- 6-13	19- 4- 3	26- 2- 7	34- 7-10	42-11- 4	50- 3-10	57- 2-15
58	2-11- 0	3- 9- 5	4-10-13	6- 4- 5	8- 2-10	10- 7-12	13-11-14	18-11-11	26- 8- 6	36- 8-11	46- 2-10	54- 9-10
59	2- 2- 7	2- 9- 9	3- 7- 2	4- 7-13	6- 0- 8	7-10- 9	10- 3-12	13- 8-13	19- 2- 1	28- 6- 7	40-10- 7	51- 8- 3
60	1- 8-14	2- 2- 0	2- 8-13	3- 5-15	4- 6- 2	5-10- 9	7- 8-15	10- 3- 6	13-11-10	20- 5- 0	33- 0- 4	47- 8-10
61	1- 4-11	1- 8-10	2- 1-12	2- 8- 9	3- 5-10	4- 5-15	5-10-12	7-10- 4	10- 7-10	14-11- 5	23- 8-15	41-10-15
62	1- 1- 2	1- 4- 5	1- 8- 8	2- 1-15	2- 9- 3	3- 6-13	4- 7-15	6- 2- 2	8- 4- 1	11- 7- 9	17- 3- 5	32-10- 1
63	0-10- 1	1- 0-12	1- 4- 5	1- 8-15	2- 3- 1	2-11- 3	3-10- 2	5- 1- 0	6- 9-13	9- 5- 0	13- 8-10	23- 2- 6
64	0- 7- 9	0- 9-15	1- 1- 0	1- 5- 1	1-10- 8	2- 5-11	3- 3- 6	4- 4- 7	5-10- 6	7-11-15	11- 5- 5	18- 0- 7
65	0- 5-12	0- 7-13	0-10-10	1- 2- 6	1- 7- 6	2- 1-15	2-10-13	3-10-13	5- 3- 7	7- 2- 5	10- 0- 7	15- 2-14
66	0- 4- 7	0- 6- 7	0- 9- 2	1- 0-11	1- 5- 6	1-11- 9	2- 7-13	3- 7- 1	4-10-11	6- 8- 5	9- 2-12	13- 6- 2
67	0- 3-12	0- 5-11	0- 8- 4	0-11-11	1- 4- 4	1-10- 2	2- 5-14	3- 4- 8	4- 7- 4	6- 3-10	8- 8- 5	12- 5-13
68	0- 3- 7	0- 5- 6	0- 7-14	0-11- 5	1- 3-11	1- 9- 6	2- 4-14	3- 2-15	4- 4-14	6- 0- 5	8- 4- 1	11-11- 6
69	0- 3- 7	0- 5- 5	0- 7-14	0-11- 4	1- 3-10	1- 9- 2	2- 4- 6	3- 2- 3	4- 3-10	5-10- 7	8- 1-12	11- 8-13
70	0- 3- 8	0- 5- 9	0- 8- 3	0-11- 8	1- 3-11	1- 9- 1	2- 4- 4	3- 1-15	4- 3- 5	5- 9-14	8- 1- 0	11- 8- 3
71	0- 3- 8	0- 5- 9	0- 8- 3	0-11- 8	1- 3-11	1- 9- 1	2- 4- 4	3- 1-15	4- 3- 5	5- 9-14	8- 1- 0	11- 8- 3
72	0- 3- 8	0- 5- 9	0- 8- 3	0-11- 8	1- 3-11	1- 9- 1	2- 4- 4	3- 1-15	4- 3- 5	5- 9-14	8- 1- 0	11- 8- 3

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M O L D   L O F T   O F F S E T S

WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
90	4- 6-14	5- 2- 0	5-10- 2	6- 7- 5	7- 5-13	8- 6- 1	9- 8- 9	11- 2- 5	13- 0-11	15- 5- 5	18- 7-12	23- 4- 8
91	5- 2- 8	5- 9-15	6- 6- 6	7- 3-14	8- 2-12	9- 3- 6	10- 6- 6	12- 0-12	13-11-11	16- 5- 5	19- 8-14	24- 7- 3
92	5-10- 8	6- 6- 4	7- 3- 0	8- 0-13	9- 0- 1	10- 1- 1	11- 4- 8	12-11- 5	14-10-14	17- 5- 4	20- 9-12	25- 9- 8
93	6- 6-14	7- 2-14	7-11-14	8-10- 0	9- 9- 9	10-10-15	12- 2-12	13- 9-15	15-10- 0	18- 4-14	21-10- 2	26-11- 2
94	7- 3- 9	7-11-12	8- 8-14	9- 7- 4	10- 7- 2	11- 8-14	13- 1- 2	14- 8-11	16- 9- 1	19- 4- 3	22- 9-12	27-11-11
95	8- 0- 8	8- 8-13	9- 6- 2	10- 4-11	11- 4-13	12- 6-15	13-11- 8	15- 7- 7	17- 7-14	20- 3- 0	23- 8-12	28-11- 6
96	9- 4- 1	10- 0- 6	10- 9-13	11- 8-10	12- 9- 2	13-11-11	15- 4-12	17- 0-15	19- 1- 6	21- 8- 2	25- 1-13	30- 5-12
97	10- 8- 4	11- 4- 8	12- 1-13	13- 0-11	14- 1- 6	15- 4- 5	16- 9-11	18- 6- 0	20- 6- 2	23- 0- 6	26- 6- 2	32- 0- 4
98	12- 1- 5	12- 9- 5	13- 6-10	14- 5- 9	15- 6- 6	16- 9- 5	18- 2-12	19-10-15	21-10-15	24- 5- 4	27-11- 6	33- 8- 9
99	13- 7-11	14- 3- 7	15- 0- 9	15-11- 3	16-11-12	18- 2- 7	19- 7- 9	21- 3-11	23- 3-15	25-10-13	29- 6- 0	35- 7- 1
100	15- 3- 9	15-10-11	16- 7- 1	17- 5- 1	18- 4-15	19- 7- 3	21- 0- 1	22- 8- 4	24- 8-15	27- 4-11	31- 1-15	37- 7- 7
101	16-11- 8	17- 5-15	18- 1-11	18-11- 0	19-10- 2	20-11-13	22- 4- 8	24- 0-12	26- 2- 3	28-11- 8	32-11- 8	39-10-10
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103	18- 0- 3	18- 6- 2	19- 1- 6	19-10- 6	20- 9- 4	21-10- 7	23- 2-11	24-11- 1	27- 1- 2	29-11- 7	34- 0-10	41- 5-12
104	18- 6- 7	19- 0- 4	19- 7- 6	20- 4- 2	21- 2-13	22- 4- 0	23- 8- 2	25- 4- 8	27- 6-12	30- 5- 6	34- 7- 5	42- 4- 1
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106	19- 7- 5	20- 0-15	20- 7-14	21- 4- 6	22- 2-12	23- 3- 9	24- 7- 6	26- 3- 8	28- 5- 9	31- 5- 4	35-10-12	44- 2- 2

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M O L D   L O F T   O F F S E T S

WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
73	0- 3- 8	0- 5- 9	0- 8- 3	0-11- 8	1- 3-11	1- 9- 1	2- 4- 4	3- 1-15	4- 3- 5	5- 9-14	8- 1- 0	11- 8- 3
74	0- 3- 8	0- 5- 9	0- 8- 3	0-11- 8	1- 3-11	1- 9- 1	2- 4- 4	3- 1-15	4- 3- 5	5- 9-14	8- 1- 0	11- 8- 3
75	0- 3- 8	0- 5- 9	0- 8- 3	0-11- 8	1- 3-11	1- 9- 1	2- 4- 4	3- 1-15	4- 3- 5	5- 9-14	8- 1- 0	11- 8- 3
76	0- 3- 8	0- 5- 9	0- 8- 3	0-11- 8	1- 3-11	1- 9- 1	2- 4- 4	3- 1-15	4- 3- 5	5- 9-14	8- 1- 0	11- 8- 3
77	0- 3- 9	0- 5-10	0- 8- 6	0-11-12	1- 3-15	1- 9- 7	2- 4-11	3- 2- 7	4- 3-13	5-10- 7	8- 1- 9	11- 8-14
78	0- 3-11	0- 5-14	0- 8-12	1- 0- 5	1- 4-12	1-10- 7	2- 6- 0	3- 4- 0	4- 5- 8	6- 0- 3	8- 3- 7	11-10-15
79	0- 4- 0	0- 6- 6	0- 9- 7	1- 1- 5	1- 6- 2	2- 0- 4	2- 8- 3	3- 6- 9	4- 8- 5	6- 3- 4	8- 6-12	12- 2-11
80	0- 4-11	0- 7- 5	0-10-10	1- 2-15	1- 8- 3	2- 2-14	2-11- 6	3-10- 4	5- 0- 7	6- 7-12	8-11-10	12- 8- 4
81	0- 6- 1	0- 9- 0	1- 0-13	1- 5- 8	1-11- 6	2- 6-10	3- 3-13	4- 3- 4	5- 6- 0	7- 1-13	9- 6- 4	13- 3-12
82	0- 8- 7	0-11-15	1- 4- 4	1- 9- 9	2- 4- 1	3- 0- 0	3- 9-12	4- 9-14	6- 1- 4	7- 9-11	10- 2-14	14- 1- 3
83	1- 0- 0	1- 4- 3	1- 9- 4	2- 3- 4	2-10- 7	3- 7- 0	4- 5- 8	5- 6- 4	6-10- 5	8- 7- 8	11- 1- 8	15- 0-12
84	1- 5- 1	1-10- 0	2- 3-13	2-10- 9	3- 6- 7	4- 3-11	5- 2-13	6- 4- 6	7- 9- 5	9- 7- 6	12- 2- 5	16- 2-13
85	2- 0- 0	2- 5-10	3- 0- 1	3- 7- 8	4- 4- 2	5- 2- 2	6- 2- 1	7- 4- 8	8-10- 8	10- 9-15	13- 6- 5	17- 8- 4
86	2- 5- 0	2-10-15	3- 5-13	4- 1-10	4-10-10	5- 9- 2	6- 9- 9	8- 0-10	9- 7- 8	11- 7-14	14- 5- 6	18- 8- 4
87	2-10-10	3- 4-15	4- 0- 2	4- 8- 5	5- 5-12	6- 4-11	7- 5-10	8- 9- 6	10- 5- 2	12- 6- 9	15- 5- 2	19- 9- 3
88	3- 4-14	3-11- 7	4- 6-15	5- 3- 8	6- 1- 5	7- 0-10	8- 2- 2	9- 6- 9	11- 3- 3	13- 5-12	16- 5- 9	20-11- 3
89	3-11-10	4- 6- 8	5- 2- 5	5-11- 3	6- 9- 5	7- 9- 2	8-11- 2	10- 4- 4	12- 1-12	14- 5- 6	17- 6- 9	22- 1-12

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M O L D   L O F T   O F F S E T S

WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
107	20- 1-13	20- 7- 4	21- 2- 0	21-10- 5	22- 8- 8	23- 9- 3	25- 1- 1	26- 9- 3	28-11- 6	31-11- 7	36- 6- 2	45- 2- 3
108	20- 8- 6	21- 1-10	21- 8- 2	22- 4- 4	23- 2- 5	24- 2-15	25- 6-13	27- 3- 0	29- 5- 6	32- 5-13	37- 1- 5	46- 3- 9
109	21- 3- 0	21- 8- 2	22- 2- 8	22-10- 7	23- 8- 5	24- 8-12	26- 0- 8	27- 8-11	29-11- 5	33- 0- 8	37- 8-10	47- 6-11
110	21- 9- 6	22- 2- 6	22- 8-10	23- 4- 6	24- 2- 2	25- 2- 8	26- 6- 2	28- 2- 5	30- 5- 2	33- 6-14	38- 4-11	48- 9- 8
111	22- 3-11	22- 8-11	23- 2-14	23-10-10	24- 8- 3	25- 8- 5	26-11-13	28- 8- 1	30-11- 5	34- 1-14	39- 1- 3	50- 1- 0
112	22-10- 3	23- 3- 1	23- 9- 3	24- 4-12	25- 2- 4	26- 2- 4	27- 5-12	29- 2- 1	31- 5- 9	34- 8- 9	39-10- 4	51- 6-10
113	23- 4-10	23- 9- 6	24- 3- 6	24-10-13	25- 8- 3	26- 8- 2	27-11-10	29- 8- 1	31-11-15	35- 3-10	40- 8- 2	53- 2- 9
114	23-11- 1	24- 3-11	24- 9- 8	25- 4-14	26- 2- 4	27- 2- 3	28- 5- 9	30- 1-14	32- 5-15	35-10-10	41- 7- 0	54-10-12
115	24- 5- 4	24- 9-13	25- 3-10	25-11- 0	26- 8- 5	27- 8- 4	28-11-12	30- 8- 4	33- 0-10	36- 6- 3	42- 5-12	56- 7- 7
116	24-11- 7	25- 4- 1	25- 9-13	26- 5- 2	27- 2- 8	28- 2- 8	29- 6- 2	31- 2-14	33- 7- 9	37- 2- 4	43- 5- 4	58- 4- 2
117	25- 5-10	25-10- 3	26- 3-15	26-11- 5	27- 8-12	28- 8-12	30- 0- 5	31- 9- 0	34- 1-14	37-10- 8	44- 5- 1	60- 1- 6
118	26- 0- 1	26- 4-11	26-10- 8	27- 5-13	28- 3- 1	29- 2-15	30- 6- 9	32- 3- 7	34- 8-14	38- 7- 3	45- 6- 3	
119	26- 6- 2	26-10-13	27- 4- 9	27-11-15	28- 9- 4	29- 9- 5	31- 1- 3	32-10- 9	35- 4-13	39- 4- 3	46- 8-12	
120	27- 0- 2	27- 4-13	27-10-11	28- 6- 2	29- 3- 9	30- 3-12	31- 7-12	33- 5- 6	36- 0- 4	40- 1- 4	47-11-13	
121	27- 6- 2	27-10-14	28- 4-14	29- 0- 6	29- 9-15	30-10- 5	32- 2- 6	34- 0- 3	36- 7-14	40-10- 5	49- 4-10	
122	27-11- 8	28- 4- 6	28-10- 7	29- 6- 2	30- 3-13	31- 4- 5	32- 8- 8	34- 6- 9	37- 2-14	41- 6- 8	50- 9-12	
123	28- 4-14	28- 9-12	29- 3-15	29-11-11	30- 9- 9	31-10- 4	33- 2-12	35- 1- 2	37-10- 1	42- 3- 0	52- 3-14	

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WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

B U T T O C K   H E I G H T S

FRM.	26- 0- 0 FT IN 16	28- 0- 0 FT IN 16	30- 0- 0 FT IN 16	32- 0- 0 FT IN 16	34- 0- 0 FT IN 16	36- 0- 0 FT IN 16	38- 0- 0 FT IN 16	40- 0- 0 FT IN 16	42- 0- 0 FT IN 16	44- 0- 0 FT IN 16	46- 0- 0 FT IN 16	48- 0- 0 FT IN 16
124	28-10- 1	29- 3- 0	29- 9- 3	30- 5- 1	31- 3- 2	32- 4- 0	33- 8-13	35- 7-12	38- 5- 1	42-11-13	53- 9-12	
125	29- 3- 3	29- 8- 2	30- 2- 7	30-10- 7	31- 8-11	32- 9-13	34- 3- 0	36- 2- 6	39- 0- 5	43- 9- 1	55- 3-12	
126	29- 8- 4	30- 1- 6	30- 7-14	31- 4- 3	32- 2-11	33- 3-15	34- 9- 4	36- 9- 0	39- 7-11	44- 6-10	56-10- 3	
127	30- 1- 7	30- 6-10	31- 1- 3	31- 9- 9	32- 8- 3	33- 9-12	35- 3- 8	37- 3-10	40- 2-14	45- 4-14	58- 4- 8	
128	30- 6- 9	30-11-14	31- 6-10	32- 3- 2	33- 1-15	34- 3-11	35- 9-12	37-10- 6	40-10- 2	46- 3- 4	59- 9-11	
129	30-11-10	31- 4-15	31-11-12	32- 8- 7	33- 7- 8	34- 9-10	36- 4- 1	38- 4-15	41- 5- 3	47- 3- 8		
130	31- 4- 9	31- 9-14	32- 4-13	33- 1-11	34- 1- 2	35- 3-11	36-10- 6	38-11- 5	42- 0- 1	48- 4- 3		
131	31- 9- 6	32- 2-13	32- 9-14	33- 6-14	34- 6- 7	35- 9- 4	37- 4- 6	39- 6- 0	42- 7- 8	49- 5-14		
132	32- 2- 3	32- 7-13	33- 3- 0	34- 0- 4	34-11-15	36- 2-15	37-10- 3	40- 0- 0	43- 2- 6	50- 8- 1		
133	27- 4- 4	27- 6- 9	27- 9- 6	28- 2- 4	28-10-11	30- 0- 8	31-10- 1	34-10- 0	41- 2- 9	53-11-12	68- 7-12	
134	49- 8- 4	49- 8- 4	49- 8- 4	49- 8- 4	49- 8- 4	49- 8- 4	49- 8- 5	49- 8- 5	49- 8- 5	57- 2- 8	71- 6-15	
135	50-10- 2	50-10- 2	50-10- 2	50-10- 2	50-10- 3	50-10- 3	50-10- 3	50-10- 3	50-10- 3	60- 5- 2	74- 4- 9	
136	52- 0- 0	52- 0- 0	52- 0- 1	52- 0- 1	52- 0- 1	52- 0- 1	52- 0- 1	52- 0- 1	52- 0- 2	63- 5-14	76-11-13	
137	53- 1-15	53- 1-15	53- 1-15	53- 1-15	53- 1-15	53- 1-15	53- 2- 0	53- 2- 0	53- 7- 0	66- 4-14	79- 6- 0	
138	54- 3-13	54- 3-13	54- 3-13	54- 3-13	54- 3-14	54- 3-14	54- 3-14	54- 3-14	56-10- 6	69- 2- 0		
139	55- 6- 1	55- 6- 1	55- 6- 1	55- 6- 1	55- 6- 1	55- 6- 1	55- 6- 2	55- 6- 2	60- 0-13	71- 9- 1		

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M O L D L O F T O F F S E T S

WATERMAN LASH

D E C K S A N D P L A T F O R M S

FRM.	UPPER DECK			MAIN DECK			SECOND DECK			TANK TOP		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
3	73- 5- 9	73- 4- 6	14- 0- 4	61- 0- 0	61- 0- 0	8- 0- 6	50- 0- 0	50- 0- 0	4- 0- 7			
4	73- 4- 9	73- 3- 3	14- 7-11	61- 0- 0	61- 0- 0	8- 8- 9	50- 0- 0	50- 0- 0	4- 6-15			
5	73- 3- 9	73- 2- 0	15- 3- 2	61- 0- 0	61- 0- 0	9- 4-12	50- 0- 0	50- 0- 0	5- 1- 6			
6	73- 2- 9	73- 0-13	15-10- 7	61- 0- 0	61- 0- 0	10- 0-14	50- 0- 0	50- 0- 0	5- 7-13			
7	73- 1-10	72-11-11	16- 5-11	61- 0- 0	60-11-12	10- 8-13	50- 0- 0	50- 0- 0	6- 2- 4			
8	73- 0-11	72-10- 9	17- 0-14	61- 0- 0	60-11- 9	11- 4-13	50- 0- 0	50- 0- 0	6- 8-12			
9	72-11-12	72- 9- 8	17- 7-15	61- 0- 0	60-11- 6	12- 0-12	50- 0- 0	50- 0- 0	7- 3- 3			
10	72-10-14	72- 8- 6	18- 2-15	61- 0- 0	60-11- 3	12- 8-11	50- 0- 0	50- 0- 0	7- 9-10			
11	72- 9-15	72- 7- 5	18- 9-14	61- 0- 0	60-11- 0	13- 4- 8	50- 0- 0	50- 0- 0	8- 4- 0			
12	72- 9- 1	72- 6- 4	19- 4-13	61- 0- 0	60-10-13	14- 0- 5	50- 0- 0	50- 0- 0	8-10- 7			
13	72- 8- 3	72- 5- 3	19-11-10	61- 0- 0	60-10-10	14- 8- 0	50- 0- 0	50- 0- 0	9- 4-15			
14	72- 7- 5	72- 4- 3	20- 6-11	61- 0- 0	60-10- 7	15- 3-11	50- 0- 0	50- 0- 0	9-11- 6			
15	72- 6- 8	72- 3- 3	21- 1- 1	61- 0- 0	60-10- 3	15-11- 4	50- 0- 0	50- 0- 0	10- 5-12			
16	72- 5-11	72- 2- 3	21- 7- 7	61- 0- 0	60-10- 0	16- 6-14	50- 0- 0	50- 0- 0	11- 0- 3			
17	72- 4-13	72- 1- 3	22- 1-12	61- 0- 0	60- 9-13	17- 2- 6	50- 0- 0	50- 0- 0	11- 6- 9			
18	72- 4- 0	72- 0- 4	22- 8- 0	61- 0- 0	60- 9-10	17- 9-14	50- 0- 0	50- 0- 0	12- 0-15			

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M O L D L O F T O F F S E T S

WATERMAN LASH

D E C K S A N D P L A T F O R M S

FRM.	UPPER DECK			MAIN DECK			SECOND DECK			TANK TOP		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
-13	74-11- 8	74-11- 8	2- 4- 1									
-12	74-10- 4	74-10- 4	3-10- 2									
-11	74- 9- 1	74- 9- 1	4- 8- 0									
-10	74- 7-14	74- 7-14	5- 5- 1									
-9	74- 6-11	74- 6-11	6- 2- 3									
-8	74- 5- 8	74- 5- 8	6-10-13									
-7	74- 4- 6	74- 4- 6	7- 7- 1	61- 0- 0	61- 0- 0	1- 0- 0						
-6	74- 3- 4	74- 3- 4	8- 3- 1	61- 0- 0	61- 0- 0	1- 9-15						
-5	74- 2- 2	74- 2- 2	8-11- 0	61- 0- 0	61- 0- 0	2- 6- 5						
-4	74- 1- 0	74- 1- 0	9- 6-14	61- 0- 0	61- 0- 0	3- 2-11						
-3	73-11-14	73-11-13	10- 2-10	61- 0- 0	61- 0- 0	3-11- 0	50- 0- 0	50- 0- 0	0- 8-12			
-2	73-10-13	73-10- 8	10-10- 6	61- 0- 0	61- 0- 0	4- 7- 3	50- 0- 0	50- 0- 0	1- 3-14			
-1	73- 9-11	73- 9- 4	11- 6- 0	61- 0- 0	61- 0- 0	5- 3- 8	50- 0- 0	50- 0- 0	1-10- 9			
0	73- 8-10	73- 8- 0	12- 1-13	61- 0- 0	61- 0- 0	5-11-12	50- 0- 0	50- 0- 0	2- 5- 0			
1	73- 7- 9	73- 6-12	12- 9- 5	61- 0- 0	61- 0- 0	6- 8- 0	50- 0- 0	50- 0- 0	2-11- 8			
2	73- 6- 9	73- 5- 9	13- 4-13	61- 0- 0	61- 0- 0	7- 4- 4	50- 0- 0	50- 0- 0	3- 6- 0			

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M O L D L O F T O F F S E T S

WATERMAN LASH

D E C K S A N D P L A T F O R M S

FRM.	UPPER DECK			MAIN DECK			SECOND DECK			TANK TOP		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
19	72- 3- 4	71-11- 5	23- 2- 4	61- 0- 0	60- 9- 7	18- 5- 4	50- 0- 0	50- 0- 0	12- 7- 5			
20	72- 2- 7	71-10- 6	23- 8- 7	61- 0- 0	60- 9- 5	19- 0-10	50- 0- 0	50- 0- 0	13- 1-10			
21	72- 1-11	71- 9- 7	24- 2- 9	61- 0- 0	60- 9- 2	19- 7-15	50- 0- 0	50- 0- 0	13- 8- 0			
22	72- 0-13	71- 8- 6	24- 9-11	61- 0- 0	60- 8-14	20- 4- 7	50- 0- 0	50- 0- 0	14- 3- 6			
23	72- 0- 0	71- 7- 6	25- 4-13	61- 0- 0	60- 8-11	21- 0-13	50- 0- 0	50- 0- 0	14-10-12			
24	71-11- 3	71- 6- 6	25-11-13	61- 0- 0	60- 8- 8	21- 9- 2	50- 0- 0	50- 0- 0	15- 6- 2			
25	71-10- 6	71- 5- 6	26- 6-12	61- 0- 0	60- 8- 4	22- 5- 6	50- 0- 0	50- 0- 0	16- 1- 7			
26	71- 9- 9	71- 4- 7	27- 1-10	61- 0- 0	60- 8- 1	23- 1- 7	50- 0- 0	50- 0- 0	16- 8-12			
27	71- 8-13	71- 3- 8	27- 8- 7	61- 0- 0	60- 7-14	23- 9- 8	50- 0- 0	50- 0- 0	17- 4- 0			
28	71- 8- 1	71- 2- 9	28- 3- 2	61- 0- 0	60- 7-11	24- 5- 8	50- 0- 0	50- 0- 0	17-11- 4			
29	71- 7- 5	71- 1-11	28- 9-13	61- 0- 0	60- 7- 7	25- 1- 7	50- 0- 0	50- 0- 0	18- 6- 7			
30	71- 6-10	71- 0-13	29- 4- 6	61- 0- 0	60- 7- 4	25- 9- 4	50- 0- 0	50- 0- 0	19- 1-10			
31	71- 5-15	70-11-15	29-10-14	61- 0- 0	60- 7- 1	26- 5- 0	50- 0- 0	50- 0- 0	19- 8-12			
32	71- 5- 4	70-11- 2	30- 5- 5	61- 0- 0	60- 6-14	27- 0-11	50- 0- 0	50- 0- 0	20- 3-13			
33	71- 4-10	70-10- 5	30-11-10	61- 0- 0	60- 6-11	27- 8- 4	50- 0- 0	50- 0- 0	20-10-14	7- 6- 0	7- 6- 0	7- 8- 6
34	71- 3-15	70- 9- 8	31- 5-14	61- 0- 0	60- 6- 8	28- 3-12	50- 0- 0	50- 0- 0	21- 5-14	7- 6- 0	7- 6- 0	7-10- 9

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M O L D L O F T O F F S E T S

WATERMAN LASH

D E C K S A N D P L A T F O R M S

FRM.	UPPER DECK			MAIN DECK			SECOND DECK			TANK TOP		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
35	71- 3- 5	70- 8-12	32- 0- 0	61- 0- 0	60- 6- 5	28-11- 2	50- 0- 0	50- 0- 0	22- 0-13	7- 6- 0	7- 6- 0	8- 0-13
36	71- 2-12	70- 8- 0	32- 6- 1	61- 0- 0	60- 6- 2	29- 6- 7	50- 0- 0	50- 0- 0	22- 7-11	7- 6- 0	7- 6- 0	8- 3- 4
37	71- 2- 3	70- 7- 5	33- 0- 0	61- 0- 0	60- 5-15	30- 1-11	50- 0- 0	50- 0- 0	23- 2- 9	7- 6- 0	7- 6- 0	8- 5-12
38	71- 1-10	70- 6- 9	33- 5-14	61- 0- 0	60- 5-12	30- 8-14	50- 0- 0	50- 0- 0	23- 9- 6	7- 6- 0	7- 6- 0	8- 8- 7
39	71- 1- 2	70- 5-15	33-11-10	61- 0- 0	60- 5-10	31- 3-15	50- 0- 0	50- 0- 0	24- 4- 2	7- 6- 0	7- 6- 0	8-11- 3
40	71- 0-10	70- 5- 4	34- 5- 5	61- 0- 0	60- 5- 7	31-10-14	50- 0- 0	50- 0- 0	24-10-14	7- 6- 0	7- 6- 0	9- 2- 1
41	71- 0- 2	70- 4-10	34-10-14	61- 0- 0	60- 5- 4	32- 5-12	50- 0- 0	50- 0- 0	25- 5- 8	7- 6- 0	7- 6- 0	9- 5- 1
42	70-11-10	70- 4- 0	35- 4- 6	61- 0- 0	60- 5- 1	33- 0- 8	50- 0- 0	50- 0- 0	26- 0- 2	7- 6- 0	7- 6- 0	9- 8- 3
43	70-11- 3	70- 3- 7	35- 9-12	61- 0- 0	60- 4-15	33- 7- 3	50- 0- 0	50- 0- 0	26- 6-11	7- 6- 0	7- 6- 0	9-11- 6
44	70-10-12	70- 2-14	36- 3- 1	61- 0- 0	60- 4-12	34- 1-12	50- 0- 0	50- 0- 0	27- 1- 2	7- 6- 0	7- 6- 0	10- 2-10
45	70- 9- 7	70- 1- 3	37- 7- 2	61- 0- 0	60- 4- 4	35- 9-10	50- 0- 0	50- 0- 0	28- 9- 1	7- 6- 0	7- 6- 0	11- 1- 4
46	70- 8- 7	69-11-12	38-10- 6	61- 0- 0	60- 3-13	37- 4- 8	50- 0- 0	50- 0- 0	30- 4- 4	7- 6- 0	7- 6- 0	12- 0- 6
47	70- 7- 9	69-10- 8	40- 0-11	61- 0- 0	60- 3- 6	38-10- 3	50- 0- 0	50- 0- 0	31-10-11	7- 6- 0	7- 6- 0	12-11-15
48	70- 6-14	69- 9- 8	41- 2- 1	61- 0- 0	60- 2-15	40- 2-10	50- 0- 0	50- 0- 0	33- 4- 6	7- 6- 0	7- 6- 0	14- 0- 0
49	70- 6- 6	69- 8-12	42- 2- 6	61- 0- 0	60- 2- 9	41- 5-14	50- 0- 0	50- 0- 0	34- 9- 4	7- 6- 0	7- 6- 0	15- 0- 8
50	70- 6- 2	69- 8- 3	43- 1-12	61- 0- 0	60- 2- 3	42- 7-11	50- 0- 0	50- 0- 0	36- 1- 5	7- 6- 0	7- 6- 0	16- 1-12

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MOLD LOFT OFFSETS

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	UPPER DECK HEIGHT AT CL	UPPER DECK HEIGHT AT SIDE	UPPER DECK HALF BREADTH	MAIN DECK HEIGHT AT CL	MAIN DECK HEIGHT AT SIDE	MAIN DECK HALF BREADTH	SECOND DECK HEIGHT AT CL	SECOND DECK HEIGHT AT SIDE	SECOND DECK HALF BREADTH	TANK TOP HEIGHT AT CL	TANK TOP HEIGHT AT SIDE	TANK TOP HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
67				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	45-10- 6
68				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 1- 6
69				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 0
70				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 7
71				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 7
72				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 7
73				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 7
74				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 7
75				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 7
76				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 7
77				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 3- 2
78				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	46- 1-13
79				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	45-11- 7
80				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	45- 7-14
81				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	45- 2-13
82				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	44- 7-14

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MOLD LOFT OFFSETS

PAGE NO. 60

WATERMAN LASH

DECKS AND PLATFORMS

FRM.	UPPER DECK HEIGHT AT CL	UPPER DECK HEIGHT AT SIDE	UPPER DECK HALF BREADTH	MAIN DECK HEIGHT AT CL	MAIN DECK HEIGHT AT SIDE	MAIN DECK HALF BREADTH	SECOND DECK HEIGHT AT CL	SECOND DECK HEIGHT AT SIDE	SECOND DECK HALF BREADTH	TANK TOP HEIGHT AT CL	TANK TOP HEIGHT AT SIDE	TANK TOP HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
51	70- 6- 0	69- 7-13	44- 0- 3	61- 0- 0	60- 1-14	43- 8- 3	50- 0- 0	50- 0- 0	37- 4- 8	7- 6- 0	7- 6- 0	17- 3-13
52	70- 6- 0	69- 7- 9	44- 9-12	61- 0- 0	60- 1-10	44- 7- 4	50- 0- 0	50- 0- 0	38- 6-14	7- 6- 0	7- 6- 0	18- 6-15
53				61- 0- 0	60- 1- 4	45-10-12		50- 0- 0	40- 5- 0	7- 6- 0	7- 6- 0	20-10- 1
54				61- 0- 0	60- 0-15	46-10-12		50- 0- 0	42- 0-11	7- 6- 0	7- 6- 0	23- 2-13
55				61- 0- 0	60- 0-11	47- 8- 6		50- 0- 0	43- 6- 4	7- 6- 0	7- 6- 0	25- 8-15
56				61- 0- 0	60- 0- 8	48- 4- 0		50- 0- 0	44- 9-10	7- 6- 0	7- 6- 0	28- 3- 9
57				61- 0- 0	60- 0- 6	48- 9-14		50- 0- 0	45-10-15	7- 6- 0	7- 6- 0	30- 9-13
58				61- 0- 0	60- 0- 4	49- 2-10		50- 0- 0	46-10- 7	7- 6- 0	7- 6- 0	33- 3- 7
59				61- 0- 0	60- 0- 2	49- 7- 2		50- 0- 0*	40- 1- 0	7- 6- 0	7- 6- 0	35- 7- 9
60				61- 0- 0	60- 0- 1	49-10-10		50- 0- 0*	40- 1- 0	7- 6- 0	10- 6- 0	40- 1-12
61				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	40- 6- 6
62				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	42- 1- 7
63				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	43- 4-12
64				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	44- 4- 7
65				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	45- 0- 7
66				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	45- 6- 0

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MOLD LOFT OFFSETS

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	UPPER DECK HEIGHT AT CL	UPPER DECK HEIGHT AT SIDE	UPPER DECK HALF BREADTH	MAIN DECK HEIGHT AT CL	MAIN DECK HEIGHT AT SIDE	MAIN DECK HALF BREADTH	SECOND DECK HEIGHT AT CL	SECOND DECK HEIGHT AT SIDE	SECOND DECK HALF BREADTH	TANK TOP HEIGHT AT CL	TANK TOP HEIGHT AT SIDE	TANK TOP HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
83				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	43-10- 8
84				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	5- 6- 0	8- 6- 0	42-10- 5
85				61- 0- 0	60- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	5- 6- 0	8- 8- 2*	35- 0- 0
86				61- 0- 0	60- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	5- 6- 0	9- 3-14*	35- 0- 0
87				61- 0- 0	60- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	5- 6- 0	10- 0- 4*	35- 0- 0
88				61- 0- 0	60- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	5- 6- 0	10- 8- 9*	35- 0- 0
89				61- 0- 0	60- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	5- 6- 0	11- 4-15*	35- 0- 0
90				61- 0- 0	60- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	50- 0- 0	5- 8- 0	12- 1- 8*	35- 0- 0
91				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	6- 3- 6	12-10-11*	35- 0- 0
92				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	6-10-12	13- 7-14*	35- 0- 0
93				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	7- 6- 2	14- 5- 1*	35- 0- 0
94				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	8- 1- 9	15- 2- 3*	35- 0- 0
95				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	8- 8-15	15-11- 6*	35- 0- 0
96				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	8- 9- 0	8- 9- 0*	8- 0- 0
97				61- 0- 0	60- 0- 0	50- 0- 0		50- 0- 0*	40- 1- 0	8- 9- 0	8- 9- 0*	8- 0- 0
98				61- 0- 0	60- 0- 0	49-11-15		50- 0- 0*	40- 1- 0	8- 9- 0	8- 9- 0*	8- 0- 0

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MOLD LOFT OFFSETS

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	UPPER DECK HEIGHT AT CL	UPPER DECK HEIGHT AT SIDE	UPPER DECK HALF BREADTH	MAIN DECK HEIGHT AT CL	MAIN DECK HEIGHT AT SIDE	MAIN DECK HALF BREADTH	SECOND DECK HEIGHT AT CL	SECOND DECK HEIGHT AT SIDE	SECOND DECK HALF BREADTH	TANK TOP HEIGHT AT CL	TANK TOP HEIGHT AT SIDE	TANK TOP HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
99				61- 0- 0	60- 0- 0	49-11- 6		50- 0- 0*	40- 1- 0	8- 9- 0	8- 9- 0	6- 1- 9
100				61- 0- 0	60- 0- 1	49-10- 6		50- 0- 0*	40- 1- 0	8- 9- 0	8- 9- 0	5- 2-12
101				61- 0- 0	60- 0- 1	49- 8-14		50- 0- 0*	40- 1- 0	8- 9- 0	8- 9- 0	3-11-11
102				61- 0- 0	60- 0- 2	49- 8- 3		50- 0- 0*	40- 1- 0			
103				61- 0- 0	60- 0- 2	49- 7- 7		50- 0- 0*	40- 1- 0			
104				61- 0- 0	60- 0- 2	49- 6-10		50- 0- 0*	40- 1- 0			
105				61- 0- 0	60- 0- 3	49- 5-12		50- 0- 0*	40- 1- 0			
106				61- 0- 0	60- 0- 3	49- 4-12		50- 0- 0*	40- 1- 0			
107				61- 0- 0	60- 0- 3	49- 3- 9		50- 0- 0*	40- 1- 0			
108				61- 0- 0	60- 0- 4	49- 2- 6		50- 0- 0*	40- 1- 0			
109				61- 0- 0	60- 0- 4	49- 1- 2		50- 0- 0*	40- 1- 0			
110				61- 0- 0	60- 0- 5	48-11-12		50- 0- 0*	40- 1- 0			
111				61- 0- 0	60- 0- 5	48-10- 6		50- 0- 0*	40- 1- 0			
112				61- 0- 0	60- 0- 6	48- 8-14		50- 0- 0*	40- 1- 0			
113				61- 0- 0	60- 0- 7	48- 7- 4		50- 0- 0*	40- 1- 0			
114				61- 0- 0	60- 0- 7	48- 5- 9		50- 0- 0*	40- 1- 0			

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	UPPER DECK			MAIN DECK			SECOND DECK			TANK TOP		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
115				61- 0- 0	60- 0- 8	48- 3-12		50- 0- 0*	40- 1- 0			
116				61- 0- 0	60- 0- 9	48- 1-14		50- 0- 0*	40- 1- 0			
117				61- 0- 0	60- 0-10	47-11-15		50- 0- 0*	40- 1- 0			
118				61- 0- 0	60- 0-10	47- 9-15		50- 0- 0*	40- 1- 0			
119				61- 0- 0	60- 0-11	47- 7-14		50- 0- 0*	40- 1- 0			
120				61- 0- 0	60- 0-12	47- 5-12		50- 0- 0*	40- 1- 0			
121				61- 0- 0	60- 0-13	47- 3- 8	50- 0- 0	50- 0- 0	46- 1- 0			
122				61- 0- 0	60- 0-14	47- 1- 7	50- 0- 0	50- 0- 0	45-10-11			
123				61- 0- 0	60- 0-15	46-11- 6	50- 0- 0	50- 0- 0	45- 8- 3			
124				61- 0- 0	60- 0-15	46- 9- 4	50- 0- 0	50- 0- 0	45- 5-13			
125				61- 0- 0	60- 1- 0	46- 7- 2	50- 0- 0	50- 0- 0	45- 3- 6			
126				61- 0- 0	60- 1- 1	46- 4-15	50- 0- 0	50- 0- 0	45- 0-14			
127				61- 0- 0	60- 1- 2	46- 2-11	50- 0- 0	50- 0- 0	44-10- 8			
128				61- 0- 0	60- 1- 3	46- 0- 7	50- 0- 0	50- 0- 0	44- 7-15			
129				61- 0- 0	60- 1- 4	45-10- 3	50- 0- 0	50- 0- 0	44- 5- 8			
130				61- 0- 0	60- 1- 5	45- 7-14	50- 0- 0	50- 0- 0	44- 3- 4			

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	UPPER DECK			MAIN DECK			SECOND DECK			TANK TOP		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
131				61- 0- 0	60- 1- 6	45- 5- 9	50- 0- 0	50- 0- 0	44- 0-15			
132				61- 0- 0	60- 1- 7	45- 3- 3	50- 0- 0	50- 0- 0	43-10-13			

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	18 FT FLAT			20 FT FLAT			22 FT FLAT			31 FT FLAT		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
0							22- 0- 0	22- 0- 0	0- 2- 1			
1							22- 0- 0	22- 0- 0	0- 4- 2			
2							22- 0- 0	22- 0- 0	0- 5-14			
3							22- 0- 0	22- 0- 0	0- 7-12			
4							22- 0- 0	22- 0- 0	0- 9-12			
5							22- 0- 0	22- 0- 0	0-11-14			
6							22- 0- 0	22- 0- 0	1- 2- 2			
7							22- 0- 0	22- 0- 0	1- 4- 7			
8							22- 0- 0	22- 0- 0	1- 6-13			
9							22- 0- 0	22- 0- 0	1- 9- 6			
10							22- 0- 0	22- 0- 0	2- 0- 1			
11							22- 0- 0	22- 0- 0	2- 2-13			
12							22- 0- 0	22- 0- 0	2- 5-10			
13							22- 0- 0	22- 0- 0	2- 8- 9			
14							22- 0- 0	22- 0- 0	2-11- 8			
15							22- 0- 0	22- 0- 0	3- 2- 8			

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	18 FT FLAT			20 FT FLAT			22 FT FLAT			31 FT FLAT		
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
16							22- 0- 0	22- 0- 0	3- 5-11			
17							22- 0- 0	22- 0- 0	3- 8-14			
18							22- 0- 0	22- 0- 0	4- 0- 2			
19							22- 0- 0	22- 0- 0	4- 3- 8			
20							22- 0- 0	22- 0- 0	4- 6-15			
21							22- 0- 0	22- 0- 0	4-10- 7			
22							22- 0- 0	22- 0- 0	5- 2-10			
23							22- 0- 0	22- 0- 0	5- 6-14			
24							22- 0- 0	22- 0- 0	5-11- 3			
25							22- 0- 0	22- 0- 0	6- 3-10			
26							22- 0- 0	22- 0- 0	6- 8- 1			
27							22- 0- 0	22- 0- 0	7- 0-10			
28							22- 0- 0	22- 0- 0	7- 5- 4			
29							22- 0- 0	22- 0- 0	7- 9-15			
30							22- 0- 0	22- 0- 0	8- 2-12			
31							22- 0- 0	22- 0- 0	8- 7- 9			

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 20

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DECKS AND PLATFORMS

FRM.	18 FT FLAT HEIGHT AT CL	18 FT FLAT HEIGHT AT SIDE	18 FT FLAT HALF BREADTH	20 FT FLAT HEIGHT AT CL	20 FT FLAT HEIGHT AT SIDE	20 FT FLAT HALF BREADTH	22 FT FLAT HEIGHT AT CL	22 FT FLAT HEIGHT AT SIDE	22 FT FLAT HALF BREADTH	31 FT FLAT HEIGHT AT CL	31 FT FLAT HEIGHT AT SIDE	31 FT FLAT HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
88							22- 6- 0	22- 6- 0	48- 6- 0		31- 6- 0	49-11- 2
89							22- 6- 0	22- 6- 0	48- 1- 7		31- 6- 0	49-10- 1
90		18- 0- 0	45- 7-12				22- 6- 0	22- 6- 0	47- 8- 6		31- 6- 0	49- 8- 7
91		18- 0- 0	45- 0- 5				22- 6- 0	22- 6- 0*	35- 0- 8			
92		18- 0- 0	44- 4- 9				22- 6- 0	22- 6- 0*	35- 0- 8			
93		18- 0- 0	43- 8-10				22- 6- 0	22- 6- 0*	35- 0- 8			
94		18- 0- 0	43- 0- 5				22- 6- 0	22- 6- 0*	35- 0- 8			
95		18- 0- 0	42- 3- 9	20- 0- 0	23- 0- 0*	35- 0- 0	22- 6- 0	22- 6- 0*	35- 0- 8			
96				20- 0- 0	23- 0- 0*	35- 0- 0						
97				20- 0- 0	23- 0- 0*	35- 0- 0						
98				20- 0- 0	23- 0- 0*	35- 0- 0						
99				20- 0- 0	23- 0- 0*	35- 0- 0						
100				20- 0- 0	23- 0- 0*	35- 0- 0						
101				20- 0- 0	23- 0- 0*	35- 0- 0						

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DECKS AND PLATFORMS

FRM.	18 FT FLAT HEIGHT AT CL	18 FT FLAT HEIGHT AT SIDE	18 FT FLAT HALF BREADTH	20 FT FLAT HEIGHT AT CL	20 FT FLAT HEIGHT AT SIDE	20 FT FLAT HALF BREADTH	22 FT FLAT HEIGHT AT CL	22 FT FLAT HEIGHT AT SIDE	22 FT FLAT HALF BREADTH	31 FT FLAT HEIGHT AT CL	31 FT FLAT HEIGHT AT SIDE	31 FT FLAT HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
32							22- 0- 0	22- 0- 0	9- 0- 8			
33							22- 0- 0	22- 0- 0	9- 5- 7			
34							22- 0- 0	22- 0- 0	9-10- 7			
35							22- 0- 0	22- 0- 0	10- 3- 8			
36							22- 0- 0	22- 0- 0	10- 8-10			
37							22- 0- 0	22- 0- 0	11- 1-12			
38							22- 0- 0	22- 0- 0	11- 7- 0			
39							22- 0- 0	22- 0- 0	12- 0- 4			
40							22- 0- 0	22- 0- 0	12- 5- 9			
41							22- 0- 0	22- 0- 0	12-10-14			
42							22- 0- 0	22- 0- 0	13- 4- 5			
43							22- 0- 0	22- 0- 0	13- 9-12			
44							22- 0- 0	22- 0- 0	14- 3- 4			
85							22- 6- 0	22- 6- 0	49- 3-11		31- 6- 0	50- 0- 0
86							22- 6- 0	22- 6- 0	49- 1- 2		31- 6- 0	50- 0- 0
87							22- 6- 0	22- 6- 0	48- 9-15		31- 6- 0	49-11-12

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DECKS AND PLATFORMS

FRM.	34 FT FLAT HEIGHT AT CL	34 FT FLAT HEIGHT AT SIDE	34 FT FLAT HALF BREADTH	37 FT FLAT HEIGHT AT CL	37 FT FLAT HEIGHT AT SIDE	37 FT FLAT HALF BREADTH	40 FT FLAT HEIGHT AT CL	40 FT FLAT HEIGHT AT SIDE	40 FT FLAT HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16			
-1							40- 0- 0	40- 0- 0	0- 4-15			
0							40- 0- 0	40- 0- 0	0- 9-14			
1							40- 0- 0	40- 0- 0	1- 2-11			
2							40- 0- 0	40- 0- 0	1- 7- 9			
3							40- 0- 0	40- 0- 0	2- 0- 7			
4							40- 0- 0	40- 0- 0	2- 5- 7			
5							40- 0- 0	40- 0- 0	2-10- 6			
6							40- 0- 0	40- 0- 0	3- 3- 6			
7							40- 0- 0	40- 0- 0	3- 8- 6			
8							40- 0- 0	40- 0- 0	4- 1- 7			
9							40- 0- 0	40- 0- 0	4- 6- 9			
10							40- 0- 0	40- 0- 0	4-11-10			
11							40- 0- 0	40- 0- 0	5- 4-13			
12							40- 0- 0	40- 0- 0	5- 9-14			
13							40- 0- 0	40- 0- 0	6- 2-15			
14							40- 0- 0	40- 0- 0	6- 8- 2			

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DECKS AND PLATFORMS

FRM.	34 FT FLAT HEIGHT AT CL	34 FT FLAT HEIGHT AT SIDE	34 FT FLAT HALF BREADTH	37 FT FLAT HEIGHT AT CL	37 FT FLAT HEIGHT AT SIDE	37 FT FLAT HALF BREADTH	40 FT FLAT HEIGHT AT CL	40 FT FLAT HEIGHT AT SIDE	40 FT FLAT HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16			
15							40- 0- 0	40- 0- 0	7- 1- 4			
16							40- 0- 0	40- 0- 0	7- 6- 6			
17							40- 0- 0	40- 0- 0	7-11- 9			
18							40- 0- 0	40- 0- 0	8- 4-12			
19							40- 0- 0	40- 0- 0	8-10- 0			
20							40- 0- 0	40- 0- 0	9- 3- 4			
21							40- 0- 0	40- 0- 0	9- 8- 8			
22							40- 0- 0	40- 0- 0	10- 2-10			
23							40- 0- 0	40- 0- 0	10- 8-12			
24							40- 0- 0	40- 0- 0	11- 2-15			
25							40- 0- 0	40- 0- 0	11- 9- 2			
26							40- 0- 0	40- 0- 0	12- 3- 5			
27							40- 0- 0	40- 0- 0	12- 9- 8			
28							40- 0- 0	40- 0- 0	13- 3-12			
29							40- 0- 0	40- 0- 0	13- 9-15			
30							40- 0- 0	40- 0- 0	14- 4- 3			

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WATERMAN LASH

DECKS AND PLATFORMS

FRM.	34 FT FLAT			37 FT FLAT			40 FT FLAT					
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16			
87								40- 0- 0	50- 0- 0			
88								40- 0- 0	50- 0- 0			
89								40- 0- 0	50- 0- 0			
90	34- 6- 0	34- 6- 0	49-11- 3		37- 0- 0	50- 0- 0		40- 0- 0	50- 0- 0			
91	34- 6- 0	34- 6- 0	49-10- 1		37- 0- 0	49-11-10						
92	34- 6- 0	34- 6- 0	49- 8- 8		37- 0- 0	49-10-13						
93	34- 6- 0	34- 6- 0	49- 6-12		37- 0- 0	49- 9-10						
94	34- 6- 0	34- 6- 0	49- 4-13		37- 0- 0	49- 8- 6						
95	34- 6- 0	34- 6- 0	49- 2-13		37- 0- 0	49- 6-13						
101	34- 6- 0	34- 6- 0*	35- 0- 8									
102	34- 6- 0	34- 6- 0*	35- 0- 8									
103	34- 6- 0	34- 6- 0*	35- 0- 8									
104	34- 6- 0	34- 6- 0*	35- 0- 8									
105	34- 6- 0	34- 6- 0*	35- 0- 8									
106	34- 6- 0	34- 6- 0*	35- 0- 8									
107	34- 6- 0	34- 6- 0*	35- 0- 8									

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DECKS AND PLATFORMS

FRM.	34 FT FLAT			37 FT FLAT			40 FT FLAT					
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16			
31							40- 0- 0	40- 0- 0	14-10- 7			
32							40- 0- 0	40- 0- 0	15- 4-11			
33							40- 0- 0	40- 0- 0	15-10-15			
34							40- 0- 0	40- 0- 0	16- 5- 3			
35							40- 0- 0	40- 0- 0	16-11- 7			
36							40- 0- 0	40- 0- 0	17- 5-11			
37							40- 0- 0	40- 0- 0	17-11-15			
38							40- 0- 0	40- 0- 0	18- 6- 3			
39							40- 0- 0	40- 0- 0	19- 0- 7			
40							40- 0- 0	40- 0- 0	19- 6-11			
41							40- 0- 0	40- 0- 0	20- 0-14			
42							40- 0- 0	40- 0- 0	20- 7- 1			
43							40- 0- 0	40- 0- 0	21- 1- 4			
44							40- 0- 0	40- 0- 0	21- 7- 7			
85								40- 0- 0	50- 0- 0			
86								40- 0- 0	50- 0- 0			

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 74

WATERMAN LASH

DECKS AND PLATFORMS

FRM.	34 FT FLAT			37 FT FLAT			40 FT FLAT					
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16			
108	34- 6- 0	34- 6- 0*	35- 0- 8									
109	34- 6- 0	34- 6- 0*	35- 0- 8									
110	34- 6- 0	34- 6- 0*	35- 0- 8									
111	34- 6- 0	34- 6- 0*	35- 0- 8									
112	34- 6- 0	34- 6- 0*	35- 0- 8									
113	34- 6- 0	34- 6- 0*	35- 0- 8									
114	34- 6- 0	34- 6- 0*	35- 0- 8									
115	34- 6- 0	34- 6- 0*	35- 0- 8									
116	34- 6- 0	34- 6- 0*	35- 0- 8									
117	34- 6- 0	34- 6- 0*	35- 0- 8									
118	34- 6- 0	34- 6- 0*	35- 0- 8									
119	34- 6- 0	34- 6- 0*	35- 0- 8									
120	34- 6- 0	34- 6- 0*	35- 0- 8									
121	34- 6- 0	34- 6- 0*	35- 0- 8									
122	34- 6- 0	34- 6- 0*	8- 1- 9									
123	34- 6- 0	34- 6- 0*	8- 1- 9									

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JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

PAGE NO. 75

WATERMAN LASH

DECKS AND PLATFORMS

FRM.	34 FT FLAT			37 FT FLAT			40 FT FLAT					
	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH	HEIGHT AT CL	HEIGHT AT SIDE	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16			
124	34- 6- 0	34- 6- 0*	8- 1- 9									
125	34- 6- 0	34- 6- 0*	8- 1- 9									
126	34- 6- 0	34- 6- 0*	8- 1- 9									
127	34- 6- 0	34- 6- 0*	8- 1- 9									
128	34- 6- 0	34- 6- 0*	8- 1- 9									
129	34- 6- 0	34- 6- 0*	8- 1- 9									
130	34- 6- 0	34- 6- 0*	8- 1- 9									
131	34- 6- 0	34- 6- 0*	8- 1- 9									

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 22

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 1 HEIGHT	LONGITUDINAL 1 HALF BREADTH	LONGITUDINAL 2 HEIGHT	LONGITUDINAL 2 HALF BREADTH	LONGITUDINAL 2P HEIGHT	LONGITUDINAL 2P HALF BREADTH	LONGITUDINAL 2S HEIGHT	LONGITUDINAL 2S HALF BREADTH	LONGITUDINAL 2A HEIGHT	LONGITUDINAL 2A HALF BREADTH	LONGITUDINAL 3 HEIGHT	LONGITUDINAL 3 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
6	0- 8- 5	2- 8- 0									2- 3- 6	4- 6- 0
7	0- 8- 2	2- 8- 0									2- 3- 4	4- 6- 0
8	0- 8- 0	2- 8- 0									2- 3- 1	4- 6- 0
9	0- 7-14	2- 8- 0									2- 2-13	4- 6- 0
10	0- 7-12	2- 8- 0									2- 2-10	4- 6- 0
11	0- 7-10	2- 8- 0									2- 2- 7	4- 6- 0
12	0- 7- 9	2- 8- 0									2- 2- 5	4- 6- 0
13	0- 7- 7	2- 8- 0									2- 2- 3	4- 6- 0
14	0- 7- 5	2- 8- 0									2- 2- 2	4- 6- 0
15	0- 7- 3	2- 8- 0									2- 2- 0	4- 6- 0
16	0- 7- 1	2- 8- 0									2- 1-12	4- 6- 0
17	0- 6-14	2- 8- 0									2- 1- 7	4- 6- 0
18	0- 6-11	2- 8- 0									2- 1- 1	4- 6- 0
19	0- 6- 7	2- 8- 0									2- 0-10	4- 6- 0
20	0- 6- 3	2- 8- 0									2- 0- 1	4- 6- 0
21	0- 5-14	2- 8- 0									1-11- 7	4- 6- 0

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DRWG. NO. 05-00-03
WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 1 HEIGHT	LONGITUDINAL 1 HALF BREADTH	LONGITUDINAL 2 HEIGHT	LONGITUDINAL 2 HALF BREADTH	LONGITUDINAL 2P HEIGHT	LONGITUDINAL 2P HALF BREADTH	LONGITUDINAL 2S HEIGHT	LONGITUDINAL 2S HALF BREADTH	LONGITUDINAL 2A HEIGHT	LONGITUDINAL 2A HALF BREADTH	LONGITUDINAL 3 HEIGHT	LONGITUDINAL 3 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
22	0- 5- 9	2- 8- 0									1-10-15	4- 6- 4
23	0- 5- 3	2- 8- 0									1-10- 6	4- 6- 8
24	0- 4-13	2- 8- 0									1- 9-11	4- 6-13
25	0- 4- 7	2- 8- 0									1- 9- 0	4- 7- 1
26	0- 4- 1	2- 8- 0									1- 8- 4	4- 7- 5
27	0- 3-11	2- 8- 0									1- 7- 7	4- 7- 9
28	0- 3- 6	2- 8- 0									1- 6-10	4- 7-13
29	0- 3- 0	2- 8- 0									1- 5-13	4- 8- 1
30	0- 2-11	2- 8- 0									1- 4-15	4- 8- 6
31	0- 2- 6	2- 8- 0									1- 4- 1	4- 8-10
32	0- 2- 1	2- 8- 0									1- 3- 4	4- 8-14
33	0- 1-13	2- 8- 0									1- 2- 7	4- 9- 2
34	0- 1- 9	2- 8- 0									1- 1-10	4- 9- 6
35	0- 1- 5	2- 8- 0									1- 0-13	4- 9-10
36	0- 1- 1	2- 8- 0									1- 0- 1	4- 9-15
37	0- 0-14	2- 8- 0									0-11- 6	4-10- 3

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DRWG. NO. 05-00-03
WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 1 HEIGHT	LONGITUDINAL 1 HALF BREADTH	LONGITUDINAL 2 HEIGHT	LONGITUDINAL 2 HALF BREADTH	LONGITUDINAL 2P HEIGHT	LONGITUDINAL 2P HALF BREADTH	LONGITUDINAL 2S HEIGHT	LONGITUDINAL 2S HALF BREADTH	LONGITUDINAL 2A HEIGHT	LONGITUDINAL 2A HALF BREADTH	LONGITUDINAL 3 HEIGHT	LONGITUDINAL 3 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
38	0- 0-12	2- 8- 0									0-10-11	4-10- 7
39	0- 0-10	2- 8- 0									0-10- 0	4-10-11
40	0- 0- 8	2- 8- 0									0- 9- 7	4-10-15
41	0- 0- 6	2- 8- 0									0- 8-14	4-11- 3
42	0- 0- 5	2- 8- 0									0- 8- 5	4-11- 8
43	0- 0- 4	2- 8- 0									0- 7-13	4-11-12
44	0- 0- 3	2- 8- 0									0- 7- 5	5- 0- 0
45	0- 0- 0	2- 8- 0									0- 7-10	5- 4- 8
46	0- 0- 0	2- 8- 0									0- 8- 0	5- 9- 1
47	0- 0- 0	2- 8- 0	0- 2- 2	4- 6- 0							0- 8- 6	6- 1- 9
48	0- 0- 0	2- 8- 0	0- 2- 2	4- 8- 8							0- 8-11	6- 6- 1
49	0- 0- 0	2- 8- 0	0- 2- 2	4-11- 1							0- 8-15	6-10-10
50	0- 0- 0	2- 8- 0	0- 2- 1	5- 1- 9							0- 8-14	7- 3- 2
51	0- 0- 0	2- 8- 0	0- 2- 0	5- 4- 0							0- 8-10	7- 7-10
52	0- 0- 0	2- 8- 0	0- 1- 9	5- 4- 0							0- 8- 0	8- 0- 0
53	0- 0- 0	2- 8- 0	0- 1- 0	5- 4- 0							0- 5- 5	8- 0- 0

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JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 1 HEIGHT	LONGITUDINAL 1 HALF BREADTH	LONGITUDINAL 2 HEIGHT	LONGITUDINAL 2 HALF BREADTH	LONGITUDINAL 2P HEIGHT	LONGITUDINAL 2P HALF BREADTH	LONGITUDINAL 2S HEIGHT	LONGITUDINAL 2S HALF BREADTH	LONGITUDINAL 2A HEIGHT	LONGITUDINAL 2A HALF BREADTH	LONGITUDINAL 3 HEIGHT	LONGITUDINAL 3 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
54	0- 0- 0	2- 8- 0	0- 0-10	5- 4- 0							0- 3- 9	8- 0- 0
55	0- 0- 0	2- 8- 0	0- 0- 8	5- 4- 0							0- 2-10	8- 0- 0
56	0- 0- 0	2- 8- 0	0- 0- 7	5- 4- 0							0- 2- 2	8- 0- 0
57	0- 0- 0	2- 8- 0	0- 0- 5	5- 4- 0							0- 1-12	8- 0- 0
58	0- 0- 0	2- 8- 0	0- 0- 3	5- 4- 0							0- 1- 5	8- 0- 0
59	0- 0- 0	2- 8- 0	0- 0- 1	5- 4- 0							0- 0-13	8- 0- 0
60	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 6	8- 0- 0
61	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 1	8- 0- 0
62	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
63	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
64	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
65	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
66	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
67	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
68	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
69	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

LONGITUDINALS

FRM.	LONGITUDINAL 1		LONGITUDINAL 2		LONGITUDINAL 2P		LONGITUDINAL 2S		LONGITUDINAL 2A		LONGITUDINAL 3	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
											0- 1- 1	8- 0- 0
86	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 3- 2	8- 0- 0
87	0- 0- 0	2- 8- 0	0- 0- 8	5- 4- 0							0- 6-12	8- 0- 0
88	0- 0- 0	2- 8- 0	0- 3- 0	5- 4- 0							0-11- 4	8- 0- 0
89	0- 0- 0	2- 8- 0	0- 7- 4	5- 4- 0							1- 4- 3	8- 0- 0
90	0- 0- 0	2- 8- 0	0-11-15	5- 4- 0							1- 9- 7	8- 0- 0
91	0- 0- 0	2- 8- 0	1- 3-15	5- 4- 0							2- 2-15	8- 0- 0
92	0- 0- 0	3- 1- 0	1- 7- 6	5- 4- 0							2- 9- 1	8- 0- 0
93	1- 0- 7	4- 1- 9	1-11- 0	5- 4- 0							3- 4- 4	8- 0- 0
94	1- 3-15	4- 3- 1	2- 3- 2	5- 4- 0							4- 0- 8	8- 0- 0
95	1- 7-13	4- 4- 3			2- 8- 0	5- 4- 0	3- 2-13	6- 1- 4			5- 3- 2	8- 0- 0
96	2- 2-13	4- 5- 7			4- 2-10	6- 1- 0	4- 3-10	6- 2- 2			6- 7-14	8- 0- 0
97	2-10- 7	4- 6- 2			5- 3-14	6- 1- 0	5- 5- 3	6- 2- 4			8- 5- 0	8- 0- 0
98	3- 6-15	4- 6- 1			6- 9- 0	6- 1- 0	6- 8- 9	6- 0-12	8-11- 2	6- 2-11	10- 5- 7	8- 0- 0
99							8- 1- 4	5- 9-12	11- 6- 8	6- 1- 3	12- 4-13	8- 0- 0
100									14- 5- 6	5- 8- 9	14- 6-14	8- 0- 0
101												

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JOB NO. C7-1000
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WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

LONGITUDINALS

FRM.	LONGITUDINAL 1		LONGITUDINAL 2		LONGITUDINAL 2P		LONGITUDINAL 2S		LONGITUDINAL 2A		LONGITUDINAL 3	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
70	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
71	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
72	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
73	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
74	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
75	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
76	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
77	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
78	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
79	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
80	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
81	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
82	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
83	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
84	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 0	8- 0- 0
85	0- 0- 0	2- 8- 0	0- 0- 0	5- 4- 0							0- 0- 4	8- 0- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

LONGITUDINALS

FRM.	LONGITUDINAL 1		LONGITUDINAL- 2		LONGITUDINAL 2P		LONGITUDINAL 2S		LONGITUDINAL 2A		LONGITUDINAL 3	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
102											15- 3-10	8- 0- 0
103											16- 0- 6	8- 0- 0
104											16- 8-14	8- 0- 0
105											17- 5- 7	8- 0- 0
106	18-10- 9	2- 8- 0	18- 8-12	5- 4- 0							18- 2- 2	8- 0- 0
107	19- 9- 6	2- 8- 0	19- 5- 3	5- 4- 0							18-10- 9	8- 0- 0
108	20- 5-13	2- 8- 0	20- 1-14	5- 4- 0							19- 7- 2	8- 0- 0
109	21- 2- 3	2- 8- 0	20-10- 3	5- 4- 0							20- 3- 8	8- 0- 0
110	21-10- 3	2- 8- 0	21- 6- 3	5- 4- 0							20-11- 8	8- 0- 0
111	22- 6- 4	2- 8- 0	22- 2- 5	5- 4- 0							21- 7- 9	8- 0- 0
112	23- 2- 2	2- 8- 0	22-10- 2	5- 4- 0							22- 3- 7	8- 0- 0
113	23- 9-12	2- 8- 0	23- 5-13	5- 4- 0							22-11- 1	8- 0- 0
114	24- 5- 3	2- 8- 0	24- 1- 3	5- 4- 0							23- 6- 8	8- 0- 0
115	25- 0- 4	2- 8- 0	24- 8- 4	5- 4- 0							24- 1- 9	8- 0- 0
116	25- 6-13	2- 8- 0	25- 2-13	5- 4- 0							24- 8- 1	8- 0- 0
117	26- 0-13	2- 8- 0	25- 8-14	5- 4- 0							25- 2- 2	8- 0- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

LONGITUDINALS

FRM.	LONGITUDINAL 1		LONGITUDINAL 2		LONGITUDINAL 2P		LONGITUDINAL 2S		LONGITUDINAL 2A		LONGITUDINAL 3	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
118	26- 6- 5	2- 8- 0	26- 2- 6	5- 4- 0							25- 7-10	8- 0- 0
119	26-10-15	2- 8- 0	26- 6-15	5- 4- 0							26- 0- 4	8- 0- 0
120	27- 2-12	2- 8- 0	26-10-13	5- 4- 0							26- 4- 1	8- 0- 0
121	27- 5- 9	2- 8- 0	27- 1-10	5- 4- 0							26- 6-15	8- 0- 0
122	27- 7- 3	2- 8- 0	27- 3- 4	5- 4- 0							26- 8- 9	8- 0- 0
123	27- 8- 1	2- 8- 0	27- 4- 2	5- 4- 0							26- 9- 7	8- 0- 0
124	27- 8- 5	2- 8- 0	27- 4- 5	5- 4- 0							26- 9-10	8- 0- 0
125	27- 7-14	2- 8- 0	27- 3-14	5- 4- 0							26- 9- 2	8- 0- 0
126	27- 6-10	2- 8- 0	27- 2-11	5- 4- 0							27- 7-13	8- 0- 0
127	27- 4-15	2- 8- 0	27- 1- 0	5- 4- 0							28- 4-11	8- 0- 0
128	27- 2-15	2- 8- 0	26-11- 0	5- 4- 0					28- 4- 8	7- 0- 0	28-11- 4	8- 0- 0
129	27- 0- 9	2- 8- 0	26- 9-12	4- 8- 3					* 28- 9-14	6- 6-14	29- 4-12	8- 0- 0
130	26- 9- 4	2- 8- 0	26- 7- 9	4- 0- 0					29- 3- 1	6- 1-15	29- 9- 7	8- 0- 0
131	26- 4- 6	2- 8- 0							29- 8- 3	5- 8-15	30- 2- 0	8- 0- 0
132	26- 6-13	2- 8- 0							30- 1- 2	5- 4- 0	30- 6- 8	8- 0- 0

RED. 6X DATE 7-81 MA. NO. H-22 BLDR. NO. 05-00-03 FRAME NO. 24

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JOB NO. C7-1000
DRWG. NO. 05-00-03 WATERMAN LASH
WATERMAN

LONGITUDINALS

FRM.	LONGITUDINAL 4		LONGITUDINAL 5		LONGITUDINAL 6		LONGITUDINAL 7		LONGITUDINAL 8		LONGITUDINAL 9	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
6	4- 7- 1	5- 9- 0										
7	4- 6-13	5- 9- 0										
8	4- 6- 8	5- 9- 0										
9	4- 6- 4	5- 9- 0										
10	4- 6- 2	5- 9- 0										
11	4- 6- 1	5- 9- 0										
12	4- 6- 0	5- 9- 0										
13	4- 6- 0	5- 9- 0										
14	4- 5-14	5- 9- 0										
15	4- 5-11	5- 9- 0										
16	4- 5- 7	5- 9- 0										
17	4- 5- 0	5- 9- 0										
18	4- 4- 6	5- 9- 0										
19	4- 3- 8	5- 9- 0										
20	4- 2- 7	5- 9- 0										
21	4- 1- 3	5- 9- 0										

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LONGITUDINALS

FRM.	LONGITUDINAL 4		LONGITUDINAL 5		LONGITUDINAL 6		LONGITUDINAL 7		LONGITUDINAL 8		LONGITUDINAL 9	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
22	4- 0-12	5- 9- 7										
23	4- 0- 5	5-10- 0										
24	3-11-12	5-10-10										
25	3-11- 2	5-11- 4										
26	3-10- 8	6- 0- 0										
27	3- 9-13	6- 0-13										
28	3- 9- 0	6- 1-10										
29	3- 8- 4	6- 2- 9										
30	3- 7- 6	6- 3- 7										
31	3- 6- 8	6- 4- 7										
32	3- 5-10	6- 5- 7										
33	3- 4-11	6- 6- 8										
34	3- 3-11	6- 7- 9										
35	3- 2-12	6- 8-10										
36	3- 1-12	6- 9-11										
37	3- 0-13	6-10-13										

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LONGITUDINALS

FRM.	LONGITUDINAL 4		LONGITUDINAL - 5		LONGITUDINAL 6		LONGITUDINAL 7		LONGITUDINAL 8		LONGITUDINAL 9	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
38	2-11-13	6-11-14										
39	2-10-13	7- 1- 0										
40	2- 9-13	7- 2- 1										
41	2- 8-14	7- 3- 2										
42	2- 7-15	7- 4- 3										
43	2- 7- 0	7- 5- 4										
44	2- 6- 3	7- 6- 6	5- 1- 5	9- 3- 0								
45	2- 4-10	7-10-10	4- 8-11	9- 8-11	5- 9-12	10- 4- 0						
46	2- 3- 2	8- 2-12	4- 4- 7	10- 1-14	5- 4-10	10-10- 5						
47	2- 1-11	8- 6-11	4- 0- 8	10- 6-11	5- 0- 9	11- 4- 9						
48	2- 0- 4	8-10- 9	3- 8-13	10-11- 4	4- 8-15	11-10-14						
49	1-10-14	9- 2- 8	3- 5- 4	11- 3-10	4- 5- 9	12- 5- 2						
50	1- 9- 6	9- 6- 9	3- 1-11	11- 7-15	4- 2- 2	12-11- 7						
51	1- 7-12	9-11- 0	2-10- 3	12- 0- 5	3-10- 8	13- 5-11	5- 6- 5	15- 5- 0				
52	1- 6- 0	10- 3-13	2- 6- 8	12- 4-12	3- 6- 9	14- 0- 0	5- 0-14	16- 0- 3				
53	1- 2-15	11- 0- 0	2- 0- 8	13- 0- 2	3- 0-11	15- 0- 2	4- 3-13	17- 0- 4				

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LONGITUDINALS

FRM.	LONGITUDINAL 4		LONGITUDINAL 5		LONGITUDINAL 6		LONGITUDINAL 7		LONGITUDINAL 8		LONGITUDINAL 9	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
54	0-10- 4	11- 0- 0	1- 7- 2	13- 6-11	2- 6-14	16- 0- 2	3- 7- 4	18- 0- 3	5- 4-11	20- 8-15		
55	0- 7- 5	11- 0- 0	1- 2-12	14- 0- 0	2- 1-11	17- 0- 0	2-11- 9	19- 0- 1	4- 3- 7	21- 6- 1		
56	0- 5-11	11- 0- 0	0-11- 1	14- 0- 0	1- 6- 8	17- 0- 0	2- 2- 8	19- 4- 1	3- 4- 9	22- 3- 2	5- 7- 4	26- 0- 0
57	0- 4- 9	11- 0- 0	0- 8-11	14- 0- 0	1- 2- 1	17- 0- 0	1- 8- 8	19- 8- 1	2- 8- 5	23- 0- 0	4- 0- 5	26- 0- 0
58	0- 3-10	11- 0- 0	0- 6-15	14- 0- 0	0-11- 3	17- 0- 0	1- 4- 9	20- 0- 0	2- 0- 1	23- 0- 0	2-11- 0	26- 0- 0
59	0- 2-10	11- 0- 0	0- 5- 7	14- 0- 0	0- 9- 0	17- 0- 0	1- 1- 5	20- 0- 0	1- 6-13	23- 0- 0	2- 2- 7	26- 0- 0
60	0- 1-12	11- 0- 0	0- 4- 0	14- 0- 0	0- 7- 0	17- 0- 0	0-10-12	20- 0- 0	1- 3- 4	23- 0- 0	1- 8-14	26- 0- 0
61	0- 0-14	11- 0- 0	0- 2- 9	14- 0- 0	0- 5- 1	17- 0- 0	0- 8- 4	20- 0- 0	1- 0- 2	23- 0- 0	1- 4-11	26- 0- 0
62	0- 0- 5	11- 0- 0	0- 1- 7	14- 0- 0	0- 3- 4	17- 0- 0	0- 5-14	20- 0- 0	0- 9- 3	23- 0- 0	1- 1- 2	26- 0- 0
63	0- 0- 1	11- 0- 0	0- 0-10	14- 0- 0	0- 1-14	17- 0- 0	0- 3-15	20- 0- 0	0- 6-12	23- 0- 0	0-10- 1	26- 0- 0
64	0- 0- 0	11- 0- 0	0- 0- 2	14- 0- 0	0- 0-14	17- 0- 0	0- 2- 7	20- 0- 0	0- 4-11	23- 0- 0	0- 7- 9	26- 0- 0
65	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 6	17- 0- 0	0- 1- 6	20- 0- 0	0- 3- 3	23- 0- 0	0- 5-12	26- 0- 0
66	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 1	17- 0- 0	0- 0-13	20- 0- 0	0- 2- 4	23- 0- 0	0- 4- 7	26- 0- 0
67	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 1	17- 0- 0	0- 0- 8	20- 0- 0	0- 1-11	23- 0- 0	0- 3-12	26- 0- 0
68	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 6	20- 0- 0	0- 1- 8	23- 0- 0	0- 3- 7	26- 0- 0
69	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 5	20- 0- 0	0- 1- 7	23- 0- 0	0- 3- 7	26- 0- 0

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LONGITUDINALS

FRM.	LONGITUDINAL 4 HEIGHT	LONGITUDINAL 4 HALF BREADTH	LONGITUDINAL 5 HEIGHT	LONGITUDINAL 5 HALF BREADTH	LONGITUDINAL 6 HEIGHT	LONGITUDINAL 6 HALF BREADTH	LONGITUDINAL 7 HEIGHT	LONGITUDINAL 7 HALF BREADTH	LONGITUDINAL 8 HEIGHT	LONGITUDINAL 8 HALF BREADTH	LONGITUDINAL 9 HEIGHT	LONGITUDINAL 9 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
86	0- 3-11	11- 0- 0	0- 6-15	14- 0- 0	0-10-15	17- 0- 0	1- 3-11	20- 0- 0	1- 9- 9	23- 0- 0	2- 5- 0	26- 0- 0
87	0- 6-10	11- 0- 0	0-10-10	14- 0- 0	1- 3- 3	17- 0- 0	1- 8- 7	20- 0- 0	2- 2-13	23- 0- 0	2-10-10	26- 0- 0
88	0-10-10	11- 0- 0	1- 3- 2	14- 0- 0	1- 8- 2	17- 0- 0	2- 1-13	20- 0- 0	2- 8- 9	23- 0- 0	3- 4-14	26- 0- 0
89	1- 3- 7	11- 0- 0	1- 8- 2	14- 0- 0	2- 1- 8	17- 0- 0	2- 7-10	20- 0- 0	3- 2-14	23- 0- 0	3-11-10	26- 0- 0
90	1- 8- 9	11- 0- 0	2- 1- 8	14- 0- 0	2- 7- 5	17- 0- 0	3- 1-15	20- 0- 0	3- 9-10	23- 0- 0	4- 6-14	26- 0- 0
91	2- 1-14	11- 0- 0	2- 7- 4	14- 0- 0	3- 1- 8	17- 0- 0	3- 8-10	20- 0- 0	4- 4-13	23- 0- 0	5- 2- 8	26- 0- 0
92	2- 7- 9	11- 0- 0	3- 1- 7	14- 0- 0	3- 8- 1	17- 0- 0	4- 3-11	20- 0- 0	5- 0- 6	23- 0- 0	5-10- 8	26- 0- 0
93	3- 2- 3	11- 0- 0	3- 8- 1	14- 0- 0	4- 3- 3	17- 0- 0	4-11- 5	20- 0- 0	5- 8- 6	23- 0- 0	6- 6-14	26- 0- 0
94	3- 9- 9	11- 0- 0	4- 3- 6	14- 0- 0	4-11- 0	17- 0- 0	5- 7- 6	20- 0- 0	6- 4-12	23- 0- 0	7- 3- 9	26- 0- 0
95	4- 5- 6	11- 0- 0	4-11-10	14- 0- 0	5- 7- 7	17- 0- 0	6- 3-15	20- 0- 0	7- 1- 8	23- 0- 0	8- 0- 8	26- 0- 0
96	5- 9- 1	11- 0- 0	6- 3- 9	14- 0- 0	6-10-13	17- 0- 0	7- 7- 4	20- 0- 0	8- 5- 0	23- 0- 0	9- 4- 1	26- 0- 0
97	7- 3-11	11- 0- 0	7- 9- 3	14- 0- 0	8- 3-13	17- 0- 0	9- 0- 3	20- 0- 0	9- 9- 7	23- 0- 0	10- 8- 4	26- 0- 0
98	9- 0- 6	11- 0- 0	9- 5- 0	14- 0- 0	9-11- 8	17- 0- 0	10- 6-11	20- 0- 0	11- 3- 3	23- 0- 0	12- 1- 5	26- 0- 0
99	10- 9-15	11- 0- 0	11- 2-13	14- 0- 0	11- 8- 2	17- 0- 0	12- 2- 7	20- 0- 0	12-10- 1	23- 0- 0	13- 7-11	26- 0- 0
100	12- 8- 4	11- 0- 0	13- 0- 9	14- 0- 0	13- 5-10	17- 0- 0	13-11- 9	20- 0- 0	14- 6-11	23- 0- 0	15- 3- 9	26- 0- 0
101	14- 7-10	11- 0- 0	14-11- 6	14- 0- 0	15- 3-14	17- 0- 0	15- 9- 4	20- 0- 0	16- 3-12	23- 0- 0	16-11- 8	26- 0- 0

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LONGITUDINALS

FRM.	LONGITUDINAL 4 HEIGHT	LONGITUDINAL 4 HALF BREADTH	LONGITUDINAL 5 HEIGHT	LONGITUDINAL 5 HALF BREADTH	LONGITUDINAL 6 HEIGHT	LONGITUDINAL 6 HALF BREADTH	LONGITUDINAL 7 HEIGHT	LONGITUDINAL 7 HALF BREADTH	LONGITUDINAL 8 HEIGHT	LONGITUDINAL 8 HALF BREADTH	LONGITUDINAL 9 HEIGHT	LONGITUDINAL 9 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
70	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 4	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 8	26- 0- 0
71	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 4	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 8	26- 0- 0
72	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 4	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 8	26- 0- 0
73	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 4	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 8	26- 0- 0
74	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 4	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 8	26- 0- 0
75	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 4	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 8	26- 0- 0
76	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 4	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 8	26- 0- 0
77	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 5	20- 0- 0	0- 1- 6	23- 0- 0	0- 3- 9	26- 0- 0
78	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 0	17- 0- 0	0- 0- 8	20- 0- 0	0- 1- 9	23- 0- 0	0- 3-11	26- 0- 0
79	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 4	17- 0- 0	0- 0-12	20- 0- 0	0- 1-13	23- 0- 0	0- 4- 0	26- 0- 0
80	0- 0- 0	11- 0- 0	0- 0- 0	14- 0- 0	0- 0- 6	17- 0- 0	0- 1- 0	20- 0- 0	0- 2- 4	23- 0- 0	0- 4-11	26- 0- 0
81	0- 0- 0	11- 0- 0	0- 0- 1	14- 0- 0	0- 0- 8	17- 0- 0	0- 1- 5	20- 0- 0	0- 3- 1	23- 0- 0	0- 6- 1	26- 0- 0
82	0- 0- 0	11- 0- 0	0- 0- 2	14- 0- 0	0- 0-11	17- 0- 0	0- 2- 2	20- 0- 0	0- 4-10	23- 0- 0	0- 8- 7	26- 0- 0
83	0- 0- 0	11- 0- 0	0- 0- 5	14- 0- 0	0- 1- 8	17- 0- 0	0- 3-11	20- 0- 0	0- 7- 2	23- 0- 0	1- 0- 0	26- 0- 0
84	0- 0- 4	11- 0- 0	0- 1- 5	14- 0- 0	0- 3- 6	17- 0- 0	0- 6- 9	20- 0- 0	0-11- 1	23- 0- 0	1- 5- 1	26- 0- 0
85	0- 1-12	11- 0- 0	0- 4- 2	14- 0- 0	0- 7- 6	17- 0- 0	0-11-10	20- 0- 0	1- 5- 1	23- 0- 0	2- 0- 0	26- 0- 0

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LONGITUDINALS

FRM.	LONGITUDINAL 4 HEIGHT	LONGITUDINAL 4 HALF BREADTH	LONGITUDINAL 5 HEIGHT	LONGITUDINAL 5 HALF BREADTH	LONGITUDINAL 6 HEIGHT	LONGITUDINAL 6 HALF BREADTH	LONGITUDINAL 7 HEIGHT	LONGITUDINAL 7 HALF BREADTH	LONGITUDINAL 8 HEIGHT	LONGITUDINAL 8 HALF BREADTH	LONGITUDINAL 9 HEIGHT	LONGITUDINAL 9 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
102	15- 3- 5	11- 0- 5	15- 6-13	14- 0- 0	15-10-15	17- 0- 0	16- 3-15	20- 0- 0	16-10- 3	23- 0- 0	17- 5-13	26- 0- 0
103	15-11- 1	11- 0- 9	16- 2- 4	14- 0- 0	16- 5-15	17- 0- 0	16-10-11	20- 0- 0	17- 4-13	23- 0- 0	18- 0- 3	26- 0- 0
104	16- 6-12	11- 0-14	16- 9-10	14- 0- 0	17- 0-15	17- 0- 0	17- 5-10	20- 0- 0	17-11- 8	23- 0- 0	18- 6- 7	26- 0- 0
105	17- 2- 8	11- 1- 3	17- 5- 0	14- 0- 0	17- 8- 1	17- 0- 0	18- 0-10	20- 0- 0	18- 6- 2	23- 0- 0	19- 0-13	26- 0- 0
106	17-10- 1	11- 1- 7	18- 0- 4	14- 0- 0	18- 3- 5	17- 0- 0	18- 7- 9	20- 0- 0	19- 0-13	23- 0- 0	19- 7- 5	26- 0- 0
107	18- 5- 4	11- 1-12	18- 7- 7	14- 0- 0	18-10- 9	17- 0- 0	19- 2- 7	20- 0- 0	19- 7- 7	23- 0- 0	20- 1-13	26- 0- 0
108	19- 0- 7	11- 2- 0	19- 2-11	14- 0- 0	19- 5-11	17- 0- 0	19- 9- 4	20- 0- 0	20- 2- 3	23- 0- 0	20- 8- 6	26- 0- 0
109	19- 7-10	11- 2- 0	19- 9-15	14- 0- 0	20- 0-10	17- 0- 0	20- 4- 3	20- 0- 0	20- 9- 0	23- 0- 0	21- 3- 0	26- 0- 0
110	20- 2-12	11- 2- 0	20- 5- 2	14- 0- 0	20- 7-12	17- 0- 0	20-11- 0	20- 0- 0	21- 3- 8	23- 0- 0	21- 9- 6	26- 0- 0
111	20- 9-14	11- 2- 0	21- 0- 4	14- 0- 0	21- 2-15	17- 0- 0	21- 6- 3	20- 0- 0	21-10- 2	23- 0- 0	22- 3-11	26- 0- 0
112	21- 5- 1	11- 2- 0	21- 7- 7	14- 0- 0	21- 9-15	17- 0- 0	22- 0-15	20- 0- 0	22- 4-13	23- 0- 0	22-10- 3	26- 0- 0
113	22- 0- 5	11- 2- 0	22- 2- 4	14- 0- 0	22- 4- 9	17- 0- 0	22- 7- 7	20- 0- 0	22-11- 6	23- 0- 0	23- 4-10	26- 0- 0
114	22- 7- 9	11- 2- 0	22- 9- 2	14- 0- 0	22-11- 3	17- 0- 0	23- 1-15	20- 0- 0	23- 5-12	23- 0- 0	23-11- 1	26- 0- 0
115	23- 2-11	11- 2- 0	23- 3-13	14- 0- 0	23- 5- 9	17- 0- 0	23- 8- 3	20- 0- 0	23-11-15	23- 0- 0	24- 5- 4	26- 0- 0
116	23- 9- 9	11- 2- 0	23-10- 9	14- 0- 0	24- 0- 2	17- 0- 0	24- 2- 7	20- 0- 0	24- 6- 3	23- 0- 0	24-11- 7	26- 0- 0
117	24- 4- 2	11- 2- 0	24- 4-15	14- 0- 0	24- 6- 5	17- 0- 0	24- 8-12	20- 0- 0	25- 0- 8	23- 0- 0	25- 5-10	26- 0- 0

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LONGITUDINALS

FRM.	LONGITUDINAL 4 HEIGHT	LONGITUDINAL 4 HALF BREADTH	LONGITUDINAL 5 HEIGHT	LONGITUDINAL 5 HALF BREADTH	LONGITUDINAL 6 HEIGHT	LONGITUDINAL 6 HALF BREADTH	LONGITUDINAL 7 HEIGHT	LONGITUDINAL 7 HALF BREADTH	LONGITUDINAL 8 HEIGHT	LONGITUDINAL 8 HALF BREADTH	LONGITUDINAL 9 HEIGHT	LONGITUDINAL 9 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
118	24-10- 2	11- 2- 0	24-11- 2	14- 0- 0	25- 0-11	17- 0- 0	25- 3- 2	20- 0- 0	25- 6-13	23- 0- 0	26- 0- 1	26- 0- 0
119	25- 3-15	11- 2- 0	25- 4-15	14- 0- 0	25- 6-11	17- 0- 0	25- 9- 2	20- 0- 0	26- 0-13	23- 0- 0	26- 6- 2	26- 0- 0
120	25- 9- 9	11- 2- 0	25-10-13	14- 0- 0	26- 0-11	17- 0- 0	26- 3- 2	20- 0- 0	26- 6-13	23- 0- 0	27- 0- 2	26- 0- 0
121	26- 3- 3	11- 2- 0	26- 4-11	14- 0- 0	26- 6-10	17- 0- 0	26- 9- 2	20- 0- 0	27- 0-12	23- 0- 0	27- 6- 2	26- 0- 0
122	26- 8- 6	11- 2- 0	26-10- 0	14- 0- 0	26-11-15	17- 0- 0	27- 2- 7	20- 0- 0	27- 6- 1	23- 0- 0	27-11- 8	26- 0- 0
123	27- 1- 6	11- 2- 0	27- 3- 2	14- 0- 0	27- 5- 2	17- 0- 0	27- 7-11	20- 0- 0	27-11- 6	23- 0- 0	28- 4-14	26- 0- 0
124	27- 6- 5	11- 2- 0	27- 8- 2	14- 0- 0	27-10- 4	17- 0- 0	28- 0-13	20- 0- 0	28- 4- 9	23- 0- 0	28-10- 1	26- 0- 0
125	27-11- 5	11- 2- 0	28- 1- 2	14- 0- 0	28- 3- 5	17- 0- 0	28- 5-15	20- 0- 0	28- 9-11	23- 0- 0	29- 3- 3	26- 0- 0
126	28- 4- 2	11- 2- 0	28- 6- 0	14- 0- 0	28- 8- 5	17- 0- 0	28-10-15	20- 0- 0	29- 2-11	23- 0- 0	29- 8- 4	26- 0- 0
127	28- 9- 1	11- 2- 0	28-10-14	14- 0- 0	29- 1- 1	17- 0- 0	29- 3-13	20- 0- 0	29- 7-12	23- 0- 0	30- 1- 7	26- 0- 0
128	29- 1-14	11- 2- 0	29- 3-12	14- 0- 0	29- 5-14	17- 0- 0	29- 8-11	20- 0- 0	30- 0-11	23- 0- 0	30- 6- 9	26- 0- 0
129	29- 6-10	11- 2- 0	29- 8- 8	14- 0- 0	29-10-11	17- 0- 0	30- 1-10	20- 0- 0	30- 5-11	23- 0- 0	30-11-10	26- 0- 0
130	29-11- 5	11- 2- 0	30- 1- 4	14- 0- 0	30- 3- 8	17- 0- 0	30- 6- 8	20- 0- 0	30-10-11	23- 0- 0	31- 4- 9	26- 0- 0
131	30- 3-15	11- 2- 0	30- 5-13	14- 0- 0	30- 8- 1	17- 0- 0	30-11- 3	20- 0- 0	31- 3- 7	23- 0- 0	31- 9- 6	26- 0- 0
132	30- 8- 8	11- 2- 0	30-10- 7	14- 0- 0	31- 0-13	17- 0- 0	31- 3-14	20- 0- 0	31- 8- 1	23- 0- 0	32- 2- 3	26- 0- 0

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 10 HEIGHT	LONGITUDINAL 10 HALF BREADTH	LONGITUDINAL 11 HEIGHT	LONGITUDINAL 11 HALF BREADTH	LONGITUDINAL 115 HEIGHT	LONGITUDINAL 115 HALF BREADTH	LONGITUDINAL 12 HEIGHT	LONGITUDINAL 12 HALF BREADTH	LONGITUDINAL 13 HEIGHT	LONGITUDINAL 13 HALF BREADTH	LONGITUDINAL 14 HEIGHT	LONGITUDINAL 14 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
74	0- 6-13	29- 0- 0	0-10- 3	31- 3- 0	1- 2- 9	33- 6- 0	1- 6- 3	35- 0- 0	2- 3- 9	37-10- 0	3- 4- 7	40- 5- 0
75	0- 6-13	29- 0- 0	0-10- 3	31- 3- 0	1- 2- 9	33- 6- 0	1- 6- 3	35- 0- 0	2- 3- 9	37-10- 0	3- 4- 7	40- 5- 0
76	0- 6-13	29- 0- 0	0-10- 3	31- 3- 0	1- 2- 9	33- 6- 0	1- 6- 3	35- 0- 0	2- 3- 9	37-10- 0	3- 4- 7	40- 5- 0
77	0- 6-15	29- 0- 0	0-10- 6	31- 3- 0	1- 2-13	33- 6- 0	1- 6- 8	35- 0- 0	2- 3-15	37- 9-14	3- 4-13	40- 4-13
78	0- 7- 4	29- 0- 0	0-10-14	31- 3- 0	1- 3- 9	33- 6- 0	1- 7- 7	35- 0- 0	2- 5- 2	37- 9- 9	3- 6- 0	40- 4- 2
79	0- 7-13	29- 0- 0	0-11-12	31- 3- 0	1- 4-13	33- 6- 0	1- 9- 0	35- 0- 0	2- 7- 1	37- 9- 0	3- 8- 1	40- 3- 0
80	0- 8-14	29- 0- 0	1- 1- 3	31- 3- 0	1- 6-13	33- 6- 0	1-11- 6	35- 0- 0				
81	0-10-13	29- 0- 0	1- 3-10	31- 3- 0	1- 9-13	33- 6- 0	2- 2-13	35- 0- 0				
82	1- 2- 0	29- 0- 0	1- 7- 7	31- 3- 0	2- 2- 5	33- 6- 0	2- 7-13	35- 0- 0				
83	1- 6-10	29- 0- 0	2- 0-14	31- 3- 0	2- 8- 8	33- 6- 0	3- 2- 8	35- 0- 0				
84	2- 0-13	29- 0- 0	2- 7-14	31- 3- 0	3- 4- 5	33- 6- 0	3-10-14	35- 0- 0				
85	2- 8-12	29- 0- 0	3- 6- 1	31- 7- 8			4- 8-14	35- 0- 0	5-10-14	37- 6- 0		
86	3- 2- 4	29- 0- 0	4- 1-10	32- 0- 0			5- 3-11	35- 0- 0	6- 6- 4	37- 6- 0		
87	3- 8- 7	29- 0- 0	4- 8- 5	32- 0- 0			5-11- 0	35- 0- 0	7- 2- 3	37- 6- 0		
88	4- 3- 2	29- 0- 0	5- 3- 8	32- 0- 0			6- 6-12	35- 0- 0	7-10- 8	37- 6- 0		
89	4-10- 5	29- 0- 0	5-11- 3	32- 0- 0			7- 3- 0	35- 0- 0	8- 7- 6	37- 6- 0		

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 10 HEIGHT	LONGITUDINAL 10 HALF BREADTH	LONGITUDINAL 11 HEIGHT	LONGITUDINAL 11 HALF BREADTH	LONGITUDINAL 115 HEIGHT	LONGITUDINAL 115 HALF BREADTH	LONGITUDINAL 12 HEIGHT	LONGITUDINAL 12 HALF BREADTH	LONGITUDINAL 13 HEIGHT	LONGITUDINAL 13 HALF BREADTH	LONGITUDINAL 14 HEIGHT	LONGITUDINAL 14 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
58	4- 3-10	29- 0- 0										
59	3- 2- 0	29- 0- 0	4- 2-10	31- 3- 0			6-10-12	35- 0- 0				
60	2- 5- 3	29- 0- 0	3- 2- 3	31- 3- 0	4- 2-11	33- 6- 0	5- 1-11	35- 0- 0				
61	1-11- 0	29- 0- 0	2- 5-13	31- 3- 0	3- 3- 2	33- 6- 0	3-11- 5	35- 0- 0				
62	1- 6- 4	29- 0- 0	1-11-12	31- 3- 0	2- 7- 3	33- 6- 0	3- 1-10	35- 0- 0				
63	1- 2- 7	29- 0- 0	1- 7- 0	31- 3- 0	2- 1- 6	33- 6- 0	2- 6-13	35- 0- 0				
64	0-11- 6	29- 0- 0	1- 3- 6	31- 3- 0	1- 9- 0	33- 6- 0	2- 1-13	35- 0- 0				
65	0- 9- 2	29- 0- 0	1- 0-14	31- 3- 0	1- 6- 0	33- 6- 0	1-10- 7	35- 0- 0				
66	0- 7-11	29- 0- 0	0-11- 4	31- 3- 0	1- 4- 1	33- 6- 0	1- 8- 4	35- 0- 0	2- 6-10	37- 9- 0	3- 8-10	40- 2-12
67	0- 6-14	29- 0- 0	0-10- 5	31- 3- 0	1- 3- 0	33- 6- 0	1- 7- 0	35- 0- 0	2- 5- 0	37- 9- 8	3- 6- 9	40- 3-14
68	0- 6- 8	29- 0- 0	0- 9-14	31- 3- 0	1- 2- 8	33- 6- 0	1- 6- 6	35- 0- 0	2- 4- 1	37- 9-13	3- 5- 4	40- 4- 9
69	0- 6- 8	29- 0- 0	0- 9-14	31- 3- 0	1- 2- 7	33- 6- 0	1- 6- 3	35- 0- 0	2- 3-11	37- 9-15	3- 4-10	40- 4-14
70	0- 6-13	29- 0- 0	0-10- 3	31- 3- 0	1- 2- 9	33- 6- 0	1- 6- 3	35- 0- 0	2- 3- 9	37-10- 0	3- 4- 7	40- 5- 0
71	0- 6-13	29- 0- 0	0-10- 3	31- 3- 0	1- 2- 9	33- 6- 0	1- 6- 3	35- 0- 0	2- 3- 9	37-10- 0	3- 4- 7	40- 5- 0
72	0- 6-13	29- 0- 0	0-10- 3	31- 3- 0	1- 2- 9	33- 6- 0	1- 6- 3	35- 0- 0	2- 3- 9	37-10- 0	3- 4- 7	40- 5- 0
73	0- 6-13	29- 0- 0	0-10- 3	31- 3- 0	1- 2- 9	33- 6- 0	1- 6- 3	35- 0- 0	2- 3- 9	37-10- 0	3- 4- 7	40- 5- 0

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 10 HEIGHT	LONGITUDINAL 10 HALF BREADTH	LONGITUDINAL 11 HEIGHT	LONGITUDINAL 11 HALF BREADTH	LONGITUDINAL 115 HEIGHT	LONGITUDINAL 115 HALF BREADTH	LONGITUDINAL 12 HEIGHT	LONGITUDINAL 12 HALF BREADTH	LONGITUDINAL 13 HEIGHT	LONGITUDINAL 13 HALF BREADTH	LONGITUDINAL 14 HEIGHT	LONGITUDINAL 14 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
90	5- 5-15	29- 0- 0	6- 7- 5	32- 0- 0			7-11-11	35- 0- 0	9- 4-11	37- 6- 0		
91	6- 2- 0	29- 0- 0	7- 3-14	32- 0- 0			8- 8-13	35- 0- 0	10- 2- 6	37- 6- 0		
92	6-10- 8	29- 0- 0	8- 0-13	32- 0- 0			9- 6- 5	35- 0- 0	11- 0- 6	37- 6- 0		
93	7- 7- 4	29- 0- 0	8-10- 0	32- 0- 0			10- 4- 0	35- 0- 0	11-10- 8	37- 6- 0		
94	8- 4- 3	29- 0- 0	9- 7- 4	32- 0- 0			11- 1-12	35- 0- 0	12- 8-12	37- 6- 0		
95	9- 1- 5	29- 0- 0	10- 4-11	32- 0- 0			11-11-10	35- 0- 0	13- 7- 1	37- 6- 0		
96	10- 4-15	29- 0- 0	11- 8-10	32- 0- 0			13- 4- 1	35- 0- 0	15- 0- 3	37- 6- 0		
97	11- 9- 0	29- 0- 0	13- 0-11	32- 0- 0			14- 8- 9	35- 0- 0	16- 5- 1	37- 6- 0		
98	13- 1-13	29- 0- 0	14- 5- 9	32- 0- 0			16- 1- 9	35- 0- 0	17-10- 2	37- 6- 0		
99	14- 7-13	29- 0- 0	15-11- 3	32- 0- 0			17- 6-13	35- 0- 0	19- 3- 1	37- 6- 0		
100	16- 2-11	29- 0- 0	17- 5- 1	32- 0- 0			18-11-12	35- 0- 0	20- 7- 9	37- 6- 0		
101	17- 9-10	29- 0- 0	18-11- 0	32- 0- 0			20- 4-10	35- 0- 0	22- 0- 0	37- 6- 0		
102	18- 3- 9	29- 0- 0	19- 4- 9	32- 0- 0			20-10- 1	35- 0- 0	22- 5- 1	37- 6- 0		
103	18- 9- 9	29- 0- 0	19-10- 6	32- 0- 0			21- 3- 9	35- 0- 0	22-10- 5	37- 6- 0		
104	19- 3-10	29- 0- 0	20- 4- 2	32- 0- 0			21- 9- 1	35- 0- 0	23- 3-13	37- 6- 0		
105	19- 9-15	29- 0- 0	20-10- 3	32- 0- 0			22- 3- 0	35- 0- 0	23- 9- 7	37- 6- 0		

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 10 HEIGHT	LONGITUDINAL 10 HALF BREADTH	LONGITUDINAL 11 HEIGHT	LONGITUDINAL 11 HALF BREADTH	LONGITUDINAL 115 HEIGHT	LONGITUDINAL 115 HALF BREADTH	LONGITUDINAL 12 HEIGHT	LONGITUDINAL 12 HALF BREADTH	LONGITUDINAL 13 HEIGHT	LONGITUDINAL 13 HALF BREADTH	LONGITUDINAL 14 HEIGHT	LONGITUDINAL 14 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
106	20- 4- 4	29- 0- 0	21- 4- 6	32- 0- 0			22- 8-13	35- 0- 0	24- 3- 1	37- 6- 0		
107	20-10- 7	29- 0- 0	21-10- 5	32- 0- 0			23- 2- 8	35- 0- 0	24- 8-12	37- 6- 0		
108	21- 4-11	29- 0- 0	22- 4- 4	32- 0- 0			23- 8- 5	35- 0- 0	25- 2- 8	37- 6- 0		
109	21-11- 2	29- 0- 0	22-10- 7	32- 0- 0			24- 2- 3	35- 0- 0	25- 8- 3	37- 6- 0		
110	22- 5- 5	29- 0- 0	23- 4- 6	32- 0- 0			24- 7-15	35- 0- 0	26- 1-14	37- 6- 0		
111	22-11-10	29- 0- 0	23-10-10	32- 0- 0			25- 1-14	35- 0- 0	26- 7- 9	37- 6- 0		
112	23- 5-15	29- 0- 0	24- 4-12	32- 0- 0			25- 7-14	35- 0- 0	27- 1- 8	37- 6- 0		
113	24- 0- 3	29- 0- 0	24-10-13	32- 0- 0			26- 1-12	35- 0- 0	27- 7- 6	37- 6- 0		
114	24- 6- 7	29- 0- 0	25- 4-14	32- 0- 0			26- 7-14	35- 0- 0	28- 1- 5	37- 6- 0		
115	25- 0- 9	29- 0- 0	25-11- 0	32- 0- 0			27- 1-15	35- 0- 0	28- 7- 7	37- 6- 0		
116	25- 6-12	29- 0- 0	26- 5- 2	32- 0- 0			27- 8- 2	35- 0- 0	29- 1-13	37- 6- 0		
117	26- 0-14	29- 0- 0	26-11- 5	32- 0- 0			28- 2- 6	35- 0- 0	29- 8- 0	37- 6- 0		
118	26- 7- 7	29- 0- 0	27- 5-13	32- 0- 0			28- 8-10	35- 0- 0	30- 2- 3	37- 6- 0		
119	27- 1- 8	29- 0- 0	27-11-15	32- 0- 0			29- 2-14	35- 0- 0	30- 8-13	37- 6- 0		
120	27- 7- 9	29- 0- 0	28- 6- 2	32- 0- 0			29- 9- 4	35- 0- 0	31- 3- 5	37- 6- 0		
121	28- 1-12	29- 0- 0	29- 0- 6	32- 0- 0			30- 3-12	35- 0- 0				

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 27

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 14A HEIGHT	HALF BREADTH	LONGITUDINAL 15 HEIGHT	HALF BREADTH	LONGITUDINAL 15A HEIGHT	HALF BREADTH	LONGITUDINAL 16 HEIGHT	HALF BREADTH	LONGITUDINAL 16A HEIGHT	HALF BREADTH	LONGITUDINAL 17 HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
-6											12- 0- 0	3- 7- 8
-5											13- 0-13	3- 4-13
-4											14- 0- 0	2-11- 4
-3											14- 0- 0	3- 1- 6
-2											14- 0- 0	3- 2-13
-1											14- 0- 0	3- 3- 6
0											14- 0- 0	3- 3-12
1											14- 0- 0	3- 3-14
2											14- 0- 0	3- 4- 3
3											14- 0- 0	3- 4- 9
4											14- 0- 0	3- 4-15
5											14- 0- 0	3- 5- 7
6											14- 0- 0	3- 6- 0
7											14- 0- 0	3- 6-10
8											14- 0- 0	3- 7- 6
9											14- 0- 0	3- 8- 4

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 10 HEIGHT	HALF BREADTH	LONGITUDINAL 11 HEIGHT	HALF BREADTH	LONGITUDINAL 115 HEIGHT	HALF BREADTH	LONGITUDINAL 12 HEIGHT	HALF BREADTH	LONGITUDINAL 13 HEIGHT	HALF BREADTH	LONGITUDINAL 14 HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
122	28- 7- 4	29- 0- 0	29- 6- 2	32- 0- 0			30- 9-11	35- 0- 0				
123	29- 0-11	29- 0- 0	29-11-11	32- 0- 0			31- 3- 9	35- 0- 0				
124	29- 5-14	29- 0- 0	30- 5- 1	32- 0- 0			31- 9- 3	35- 0- 0				
125	29-11- 2	29- 0- 0	30-10- 7	32- 0- 0			32- 2-14	35- 0- 0				
126	30- 4- 7	29- 0- 0	31- 4- 3	32- 0- 0			32- 8-14	35- 0- 0				
127	30- 9-11	29- 0- 0	31- 9- 9	32- 0- 0			33- 2- 9	35- 0- 0				
128	31- 3- 1	29- 0- 0	32- 3- 2	32- 0- 0			33- 8- 6	35- 0- 0				
129	31- 8- 2	29- 0- 0	32- 8- 7	32- 0- 0			34- 2- 2	35- 0- 0				
130	32- 1- 2	29- 0- 0	33- 1-11	32- 0- 0			34- 7-15	35- 0- 0				
131	32- 6- 2	29- 0- 0	33- 6-14	32- 0- 0			35- 1- 6	35- 0- 0				
132	32-11- 3	29- 0- 0	34- 0- 4	32- 0- 0			35- 7- 0	35- 0- 0				

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 14A HEIGHT	HALF BREADTH	LONGITUDINAL 15 HEIGHT	HALF BREADTH	LONGITUDINAL 15A HEIGHT	HALF BREADTH	LONGITUDINAL 16 HEIGHT	HALF BREADTH	LONGITUDINAL 16A HEIGHT	HALF BREADTH	LONGITUDINAL 17 HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
10											14- 0- 0	3- 9- 4
11											14- 0- 0	3-10- 5
12											14- 0- 0	3-11- 8
13											14- 0- 0	4- 0-12
14											14- 0- 0	4- 2- 2
15											14- 0- 0	4- 3-10
16											14- 0- 0	4- 5- 2
17											14- 0- 0	4- 6-12
18											14- 0- 0	4- 8- 7
19											14- 0- 0	4-10- 4
20											14- 0- 0	5- 0- 2
21											14- 0- 0	5- 2- 2
22											14- 0- 0	5- 4-10
23											14- 0- 0	5- 7- 4
24											14- 0- 0	5- 9-15
25											14- 0- 0	6- 0-13

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 14A HEIGHT	HALF BREADTH	LONGITUDINAL 15 HEIGHT	HALF BREADTH	LONGITUDINAL 15A HEIGHT	HALF BREADTH	LONGITUDINAL 16 HEIGHT	HALF BREADTH	LONGITUDINAL 16A HEIGHT	HALF BREADTH	LONGITUDINAL 17 HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
26											14- 0- 0	6- 3-11
27											14- 0- 0	6- 6-12
28											14- 0- 0	6- 9-14
29											14- 0- 0	7- 1- 2
30											14- 0- 0	7- 4- 7
31											14- 0- 0	7- 7-14
32											14- 0- 0	7-11- 6
33											14- 0- 0	8- 3- 0
34											14- 0- 0	8- 6-11
35											14- 0- 0	8-10- 8
36											14- 0- 0	9- 2- 5
37											14- 0- 0	9- 6- 5
38											14- 0- 0	9-10- 5
39											14- 0- 0	10- 2- 7
40											14- 0- 0	10- 6-10
41											13- 9- 0	10-10- 4

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MOLD LOFT OFFSETS

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LONGITUDINALS

FRM.	LONGITUDINAL 14A		LONGITUDINAL 15		LONGITUDINAL 15A		LONGITUDINAL 16		LONGITUDINAL 16A		LONGITUDINAL 17	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
42											13- 6- 0	11- 1-13
43											13- 3- 0	11- 5- 7
44							10- 2- 0	11- 0- 3			13- 0- 0	11- 9- 1
45							10- 2- 0	12- 0-13			13- 0- 0	12-11- 3
46							10- 2- 0	13- 2- 0			13- 0- 0	14- 2- 1
47							10- 2- 0	14- 3-13			13- 0- 0	15- 5-11
48							10- 2- 0	15- 6- 4			13- 0- 0	16- 9-14
49							10- 2- 0	16- 9- 2			13- 0- 0	18- 2-10
50							10- 2- 0	18- 0- 9			13- 0- 0	19- 7-13
51							10- 2- 0	19- 4-10			13- 0- 0	21- 1- 6
52							10- 2- 0	20- 9- 4	10- 0- 0	20- 7-13	13- 0- 0	22- 7- 4
53							11- 6- 0	24- 1-15	10- 0- 0	23- 0-11	13- 0- 0	25- 1- 8
54							11- 6- 0	26- 8- 0	10- 0- 0	25- 6- 7	13- 0- 0	27- 7-13
55							11- 6- 0	29- 2- 9	10- 0- 0	28- 0-15	13- 0- 0	30- 2- 7
56							11- 6- 0	31- 9- 0	10- 0- 0	30- 7- 9	13- 0- 0	32- 8-10
57							11- 6- 0	34- 2- 9	10- 0- 0	33- 1- 7	13- 0- 0	35- 1-13

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MOLD LOFT OFFSETS

WATERMAN LASH

LONGITUDINALS

FRM.	LONGITUDINAL 14A		LONGITUDINAL 15		LONGITUDINAL 15A		LONGITUDINAL 16		LONGITUDINAL 16A		LONGITUDINAL 17	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
58							11- 6- 0	36- 6-15	10- 0- 0	35- 6- 4	13- 0- 0	37- 5-12
59							11- 6- 0	38- 9- 7			13- 0- 0	39- 7-10
60							11- 6- 0	40- 9- 2			13- 0- 0	41- 6-11
61							10- 3- 0	41- 9- 3			13- 0- 0	43- 2-11
62							10- 3- 0	43- 3- 3			13- 0- 0	44- 7- 6
63							10- 3- 0	44- 5-12			13- 0- 0	45- 8-13
64							10- 3- 0	45- 5- 2			13- 0- 0	46- 7- 9
65							10- 3- 0	46- 1- 7			13- 0- 0	47- 3-14
66			5- 2- 0	42- 4- 3			10- 3- 0	46- 7- 6			13- 0- 0	47-10- 0
67			4-11-10	42- 5-14			10- 3- 0	46-11-10			13- 0- 0	48- 2- 3
68			4-10- 0	42- 7- 1			10- 3- 0	47- 2- 5			13- 0- 0	48- 4-11
69			4- 9- 1	42- 7-12			10- 3- 0	47- 3- 9			13- 0- 0	48- 5-13
70			4- 8-12	42- 8- 0			10- 3- 0	47- 3-15			13- 0- 0	48- 6- 0
71			4- 8-12	42- 8- 0			10- 3- 0	47- 3-15			13- 0- 0	48- 6- 0
72			4- 8-12	42- 8- 0			10- 3- 0	47- 3-15			13- 0- 0	48- 6- 0
73			4- 8-12	42- 8- 0			10- 3- 0	47- 3-15			13- 0- 0	48- 6- 0

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JOB NO. C7-1000
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MOLD LOFT OFFSETS

WATERMAN LASH

LONGITUDINALS

FRM.	LONGITUDINAL 14A		LONGITUDINAL 15		LONGITUDINAL 15A		LONGITUDINAL 16		LONGITUDINAL 16A		LONGITUDINAL 17	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
74			4- 8-12	42- 8- 0			10- 3- 0	47- 3-15			13- 0- 0	48- 6- 0
75			4- 8-12	42- 8- 0			10- 3- 0	47- 3-15			13- 0- 0	48- 6- 0
76			4- 8-12	42- 8- 0			10- 3- 0	47- 3-15			13- 0- 0	48- 6- 0
77			4- 9- 0	42- 7-10			10- 3- 0	47- 3-10			13- 0- 0	48- 5-13
78			4- 9-14	42- 6- 7			10- 3- 0	47- 2- 9			13- 0- 0	48- 5- 1
79			4-11- 6	42- 4- 7			10- 3- 0	47- 0-11			13- 0- 0	48- 3-10
80							10- 3- 0	46- 9-12			13- 0- 0	48- 1- 8
81							10- 3- 0	46- 5-10			13- 0- 0	47-10- 8
82							10- 3- 0	46- 0- 1			13- 0- 0	47- 6- 7
83							10- 4- 6	45- 5-10			13- 0- 0	47- 1- 1
84							10- 6- 2	44- 9- 6			13- 0- 0	46- 5-13
85	7- 0- 0	39- 5- 1			8- 5- 5	41- 5-10	10- 8- 8	43-10-11			13- 1- 2	45- 8-11
86	7- 6- 5	39- 2- 9			8- 9-10	41- 0- 3	10-10- 2	43- 3- 3			13- 2- 0	45- 2- 0
87	8- 1- 0	38-11-15			9- 2- 4	40- 6- 8	10-11-14	42- 7- 1			13- 2-15	44- 6-10
88	8- 8- 0	38- 9- 2			9- 7- 0	40- 0- 9	11- 1-12	41-10- 7			13- 3-15	43-10- 9
89					9-11-15	39- 6- 7	11- 3-11	41- 1- 8			13- 5- 0	43- 2- 1

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MOLD LOFT OFFSETS

WATERMAN LASH

LONGITUDINALS

FRM.	LONGITUDINAL 14A		LONGITUDINAL 15		LONGITUDINAL 15A		LONGITUDINAL 16		LONGITUDINAL 16A		LONGITUDINAL 17	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
90					10- 5- 0	39- 0- 1	11- 5-12	40- 4- 1			13- 6- 3	42- 5- 2
91							11- 7-14	39- 6- 3			13- 7- 5	41- 7-14
92							12- 2-13	39- 1-13			13- 8- 9	40-10- 3
93							12-10- 0	38- 9-11			13- 9-14	39-11-15
94											14- 3- 3	39- 5-12
95											14- 8-10	38-11- 9
96											15- 5-11	38- 1- 4

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M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 18 HEIGHT	LONGITUDINAL 18 HALF BREADTH	LONGITUDINAL 18A HEIGHT	LONGITUDINAL 18A HALF BREADTH	LONGITUDINAL 19 HEIGHT	LONGITUDINAL 19 HALF BREADTH	LONGITUDINAL 20 HEIGHT	LONGITUDINAL 20 HALF BREADTH	LONGITUDINAL 21 HEIGHT	LONGITUDINAL 21 HALF BREADTH	LONGITUDINAL 22 HEIGHT	LONGITUDINAL 22 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
44	16- 0- 0	12- 6- 5			19- 0- 0	13- 4- 5	22- 0- 0	14- 3- 4	24- 6- 0	15- 1- 3	27- 6- 0	16- 2- 3
45	16- 0- 0	13- 9-13			19- 0- 0	14- 8-15	22- 0- 0	15- 8-13	24- 6- 0	16- 7- 6	27- 6- 0	17- 8-13
46	16- 0- 0	15- 2- 0			19- 0- 0	16- 2- 3	22- 0- 0	17- 2-13	24- 6- 0	18- 1-13	27- 6- 0	19- 3- 9
47	16- 0- 0	16- 6-15			19- 0- 0	17- 8- 0	22- 0- 0	18- 9- 4	24- 6- 0	19- 8- 8	27- 6- 0	20-10- 7
48	16- 0- 0	18- 0- 6			19- 0- 0	19- 2- 4	22- 0- 0	20- 3-15	24- 6- 0	21- 3- 6	27- 6- 0	22- 5- 6
49	16- 0- 0	19- 6- 6			19- 0- 0	20- 8-14	22- 0- 0	21-10-13	24- 6- 0	22-10- 5	27- 6- 0	24- 0- 5
50	16- 0- 0	21- 0-11			19- 0- 0	22- 3-12	22- 0- 0	23- 5-13	24- 6- 0	24- 5- 5	27- 6- 0	25- 7- 3
51	16- 0- 0	22- 7- 4			19- 0- 0	23-10-12	22- 0- 0	25- 0-14	24- 6- 0	26- 0- 5	27- 6- 0	27- 2- 1
52	16- 0- 0	24- 1-13			19- 0- 0	25- 5-11	22- 0- 0	26- 7-14	24- 6- 0	27- 7- 3	27- 6- 0	28- 8-11
53	16- 0- 0	26- 8-14			19- 0- 0	28- 1- 1	22- 0- 0	29- 3- 5	24- 6- 0	30- 2- 6	27- 6- 0	31- 3- 6
54	16- 0- 0	29- 3- 9			19- 0- 0	30- 7-13	21-11-14	31- 9-12	24- 6- 0	32- 8- 8	27- 6- 0	33- 8-13
55	16- 0- 0	31-10- 2			19- 0- 0	33- 2- 0			24- 6- 0	35- 1-10	27- 6- 0	36- 1- 1
56	16- 0- 0	34- 3-13			19- 0- 0	35- 7- 2			24- 6- 0	37- 5- 4	27- 6- 0	38- 3-10
57	16- 0- 0	36- 8- 2			19- 0- 0	37-10- 8			24- 6- 0	39- 6-11	27- 6- 0	40- 3-15
58	16- 0- 0	38-10-15			19- 0- 0	40- 0- 2	21- 6- 0	40- 9- 0	24- 6- 0	41- 6- 1	27- 6- 0	42- 2- 1
59	16- 0- 0	40-11- 9			19- 0- 0	41-11- 7	21- 6- 0	42- 7- 3	24- 6- 0	43- 3- 0	27- 6- 0	43- 9-13

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WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 18 HEIGHT	LONGITUDINAL 18 HALF BREADTH	LONGITUDINAL 18A HEIGHT	LONGITUDINAL 18A HALF BREADTH	LONGITUDINAL 19 HEIGHT	LONGITUDINAL 19 HALF BREADTH	LONGITUDINAL 20 HEIGHT	LONGITUDINAL 20 HALF BREADTH	LONGITUDINAL 21 HEIGHT	LONGITUDINAL 21 HALF BREADTH	LONGITUDINAL 22 HEIGHT	LONGITUDINAL 22 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
60	16- 0- 0	42- 9- 7			19- 0- 0	43- 8- 0	21- 6- 0	44- 2-12	24- 6- 0	44- 9- 5	27- 6- 0	45- 2-15
61	16- 0- 0	44- 4- 4			19- 0- 0	45- 1-13	21- 6- 0	45- 7-12	24- 6- 0	46- 1- 4	27- 6- 0	46- 5-14
62	16- 0- 0	45- 7-14			19- 0- 0	46- 4-11	21- 6- 0	46- 9-15	24- 6- 0	47- 2-12	27- 6- 0	47- 6- 8
63	16- 0- 0	46- 8- 8			19- 0- 0	47- 4-11	21- 6- 0	47- 9- 8	24- 6- 0	48- 1-10	27- 6- 0	48- 4-11
64	16- 0- 0	47- 6- 9			19- 0- 0	48- 2- 2	21- 6- 0	48- 6- 8	24- 6- 0	48-10- 2	27- 6- 0	49- 0-11
65	16- 0- 0	48- 2- 4			19- 0- 0	48- 9- 2	21- 6- 0	49- 1- 1	24- 6- 0	49- 4- 5	27- 6- 0	49- 6- 7
66	16- 0- 0	48- 7-14			19- 0- 0	49- 2- 3	21- 6- 0	49- 5-11	24- 6- 0	49- 8- 6	27- 6- 0	49-10- 0
67	16- 0- 0	48-11-15			19- 0- 0	49- 5-13	21- 6- 0	49- 8-13	24- 6- 0	49-10-13	27- 6- 0	49-11-11
68	16- 0- 0	49- 2- 7			19- 0- 0	49- 8- 1	21- 6- 0	49-10-10	24- 6- 0	49-11-14	27- 6- 0	50- 0- 0
69	16- 0- 0	49- 3- 9			19- 0- 0	49- 9- 2	21- 6- 0	49-11- 6	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
70	16- 0- 0	49- 3-13			19- 0- 0	49- 9- 7	21- 6- 0	49-11- 9	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
71	16- 0- 0	49- 3-13			19- 0- 0	49- 9- 7	21- 6- 0	49-11- 9	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
72	16- 0- 0	49- 3-13			19- 0- 0	49- 9- 7	21- 6- 0	49-11- 9	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
73	16- 0- 0	49- 3-13			19- 0- 0	49- 9- 7	21- 6- 0	49-11- 9	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
74	16- 0- 0	49- 3-13			19- 0- 0	49- 9- 7	21- 6- 0	49-11- 9	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
75	16- 0- 0	49- 3-13			19- 0- 0	49- 9- 7	21- 6- 0	49-11- 9	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0

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JOB NO. C7-1000
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WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 18 HEIGHT	LONGITUDINAL 18 HALF BREADTH	LONGITUDINAL 18A HEIGHT	LONGITUDINAL 18A HALF BREADTH	LONGITUDINAL 19 HEIGHT	LONGITUDINAL 19 HALF BREADTH	LONGITUDINAL 20 HEIGHT	LONGITUDINAL 20 HALF BREADTH	LONGITUDINAL 21 HEIGHT	LONGITUDINAL 21 HALF BREADTH	LONGITUDINAL 22 HEIGHT	LONGITUDINAL 22 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
76	16- 0- 0	49- 3-13			19- 0- 0	49- 9- 7	21- 6- 0	49-11- 9	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
77	16- 0- 0	49- 3-11			19- 0- 0	49- 9- 5	21- 6- 0	49-11- 8	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
78	16- 0- 0	49- 3- 3			19- 0- 0	49- 9- 0	21- 6- 0	49-11- 6	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
79	16- 0- 0	49- 2- 4			19- 0- 0	49- 8- 7	21- 6- 0	49-11- 1	24- 6- 0	50- 0- 0	27- 6- 0	50- 0- 0
80	16- 0- 0	49- 0-12			19- 0- 0	49- 7- 9	21- 6- 0	49-10-10	24- 6- 0	49-11-15	27- 6- 0	50- 0- 0
81	16- 0- 0	48-10-11			19- 0- 0	49- 6- 4	21- 6- 0	49- 9-14	24- 6- 0	49-11-13	27- 6- 0	50- 0- 0
82	16- 0- 0	48- 7-14			19- 0- 0	49- 4- 7	21- 6- 0	49- 8-12	24- 6- 0	49-11- 7	27- 6- 0	50- 0- 0
83	16- 0- 0	48- 4- 1			19- 0- 0	49- 1-15	21- 6- 0	49- 7- 3	24- 6- 0	49-10-12	27- 6- 0	50- 0- 0
84	16- 0- 0	47-10-15			19- 0- 0	48-10- 8	21- 6- 0	49- 4-14	24- 6- 0	49- 9- 9	27- 6- 0	49-11-11
85	16- 0- 0	47- 3-11			19- 0- 0	48- 5- 6	21- 6- 0	49- 1- 4	24- 6- 0	49- 7- 8	27- 6- 0	49-10-14
86	16- 0- 0	46-10- 3			19- 0- 0	48- 1- 5	21- 6- 0	48-10- 5	24- 6- 0	49- 5-11	27- 6- 0	49- 9-15
87	16- 0- 0	46- 3-14	18- 0- 0	47- 3-10	19- 0- 4	47- 8-11	21- 6- 0	48- 6-11	24- 6- 0	49- 3- 3	27- 6- 0	49- 8- 9
88	16- 0- 0	45- 8-12	18- 0- 0	46- 9- 9	19- 1- 3	47- 3- 8	21- 6- 0	48- 2- 5	24- 6- 0	49- 0- 2	27- 6- 0	49- 6- 9
89	16- 0- 0	45- 1- 0	18- 0- 0	46- 2-14	19- 2- 3	46- 9-14	21- 6- 0	47- 9- 5	24- 6- 0	48- 8- 6	27- 6- 0	49- 4- 1
90	16- 0- 0	44- 4-12	18- 0- 0	45- 7-12	19- 3- 5	46- 3-14	21- 6- 0	47- 3-13	24- 6- 0	48- 4- 3	27- 6- 0	49- 1- 1
91	16- 0- 0	43- 8- 2	18- 0- 0	45- 0- 5	19- 4- 7	45- 9-10	21- 6- 0	46-10- 0	24- 6- 0	47-11-10	27- 6- 0	48- 9- 9

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JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 18 HEIGHT	LONGITUDINAL 18 HALF BREADTH	LONGITUDINAL 18A HEIGHT	LONGITUDINAL 18A HALF BREADTH	LONGITUDINAL 19 HEIGHT	LONGITUDINAL 19 HALF BREADTH	LONGITUDINAL 20 HEIGHT	LONGITUDINAL 20 HALF BREADTH	LONGITUDINAL 21 HEIGHT	LONGITUDINAL 21 HALF BREADTH	LONGITUDINAL 22 HEIGHT	LONGITUDINAL 22 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
92	16- 0- 0	42-11- 3	18- 0- 0	44- 4- 9	19- 5- 9	45- 3- 5	21- 6- 0	46- 4- 0	24- 6- 0	47- 6-13	27- 6- 0	48- 5-14
93	16- 0- 0	42- 1-12	18- 0- 0	43- 8-10	19- 6-12	44- 8-15	21- 6- 1	45-10- 0	24- 6- 1	47- 2- 0	27- 6- 0	48- 2- 1
94	16- 0- 0	41- 3-11	18- 0- 0	43- 0- 5	19- 7-15	44- 2- 8	21- 7-15	45- 4-14	24- 7- 9	46- 9-13	27- 6- 0	47-10- 4
95	16- 0- 0	40- 4-15	18- 0- 0	42- 3- 9	19- 9- 2	43- 7-15	21- 9-12	44-11-13	24- 9- 0	46- 5-11	27- 6- 0	47- 6- 8
96	16- 8- 9	39- 7- 3	18- 0- 6	40-11-14	19-11- 3	42- 8- 6	22- 0-14	44- 3- 3	24-11- 7	45-10-14	27- 6- 1	47- 0- 3
97	17- 5- 6	38- 9- 8	18- 6- 5	40- 0- 5	20- 1- 8	41- 7-12	22- 4- 3	43- 6- 2	25- 1-15	45- 3-12	27- 6-13	46- 5-12
98			19- 0- 9	39- 0- 2	20- 4- 1	40- 5- 9	22- 7-15	42- 7-13	25- 4-14	44- 7- 8	27- 7-11	45-10- 4
99			19-11- 7	38- 4-14	21- 1-14	39-10- 0	23- 0- 1	41- 8- 8	25- 8- 3	43-10- 3	27- 8-11	45- 1- 6
100					21-11-14	39- 2- 9	23- 4- 6	40- 8- 9	25-11-12	43- 0- 1	27- 9-14	44- 3- 5
101					22-10- 0	38- 7- 0	23- 9- 0	39- 7-14	26- 3- 9	42- 1- 3	27-11- 3	43- 4- 0
102							24- 0- 6	39- 6- 1	26- 6- 5	41-11- 0	28- 1- 9	43- 1-11
103							24- 4- 0	39- 4- 5	26- 9- 3	41- 8-12	28- 4- 3	42-11- 7
104							24- 7-14	39- 2- 8	27- 0- 2	41- 6- 8	28- 6-13	42- 9- 3
105							24-11-12	39- 0-11	27- 2-15	41- 4- 5	28- 9- 5	42- 7- 0
106							25- 3-13	38-10-12	27- 5-14	41- 2- 1	28-11-13	42- 4-14
107							25- 7-15	38- 8-13	27- 9- 0	40-11-11	29- 2- 9	42- 2- 8

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 29

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 23 HEIGHT	LONGITUDINAL 23 HALF BREADTH	LONGITUDINAL 24 HEIGHT	LONGITUDINAL 24 HALF BREADTH	LONGITUDINAL 25 HEIGHT	LONGITUDINAL 25 HALF BREADTH	LONGITUDINAL 26 HEIGHT	LONGITUDINAL 26 HALF BREADTH	LONGITUDINAL 27 HEIGHT	LONGITUDINAL 27 HALF BREADTH	LONGITUDINAL 28 HEIGHT	LONGITUDINAL 28 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
-1	30- 0- 0	0- 0- 0										
0	30- 0- 0	0- 1-14										
1	30- 0- 0	0- 5-10										
2	30- 0- 0	0- 8-13										
3	30- 0- 0	1- 0- 2										
4	30- 0- 0	1- 3- 7										
5	30- 0- 0	1- 6-14										
6	30- 0- 0	1-10- 5										
7	30- 0- 0	2- 1-13										
8	30- 0- 0	2- 5- 6										
9	30- 0- 0	2- 8-15										
10	30- 0- 0	3- 0- 9										
11	30- 0- 0	3- 4- 4										
12	30- 0- 0	3- 8- 1										
13	30- 0- 0	3-11-14										
14	30- 0- 0	4- 3-12										

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JOB NO. C7-1000
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WATERMAN

M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 18 HEIGHT	LONGITUDINAL 18 HALF BREADTH	LONGITUDINAL 18A HEIGHT	LONGITUDINAL 18A HALF BREADTH	LONGITUDINAL 19 HEIGHT	LONGITUDINAL 19 HALF BREADTH	LONGITUDINAL 20 HEIGHT	LONGITUDINAL 20 HALF BREADTH	LONGITUDINAL 21 HEIGHT	LONGITUDINAL 21 HALF BREADTH	LONGITUDINAL 22 HEIGHT	LONGITUDINAL 22 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
108							26- 0- 2	38- 6-14	28- 0- 4	40- 9- 3	29- 5- 7	42- 0- 1
109							26- 4- 4	38- 4-15	28- 3- 6	40- 6-12	29- 8- 4	41- 9-10
110									28- 6- 9	40- 4- 5		
111									28- 9-13	40- 1-13		
112									29- 1- 4	39-11- 3		
113									29- 4-11	39- 8- 8		
114									29- 8- 2	39- 5-14		
115									29-11-13	39- 3- 0		
116									30- 3-12	39- 0- 0		
117									30- 7- 8	38- 9- 2		

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M O L D   L O F T   O F F S E T S

WATERMAN LASH

L O N G I T U D I N A L S

FRM.	LONGITUDINAL 23 HEIGHT	LONGITUDINAL 23 HALF BREADTH	LONGITUDINAL 24 HEIGHT	LONGITUDINAL 24 HALF BREADTH	LONGITUDINAL 25 HEIGHT	LONGITUDINAL 25 HALF BREADTH	LONGITUDINAL 26 HEIGHT	LONGITUDINAL 26 HALF BREADTH	LONGITUDINAL 27 HEIGHT	LONGITUDINAL 27 HALF BREADTH	LONGITUDINAL 28 HEIGHT	LONGITUDINAL 28 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
15	30- 0- 0	4- 7-11										
16	30- 0- 0	4-11-10										
17	30- 0- 0	5- 3-10										
18	30- 0- 0	5- 7-10										
19	30- 0- 0	5-11-11										
20	30- 0- 0	6- 3-13										
21	30- 0- 0	6- 8- 0										
22	30- 0- 0	7- 0-15										
23	30- 0- 0	7- 5-15										
24	30- 0- 0	7-11- 0										
25	30- 0- 0	8- 4- 2										
26	30- 0- 0	8- 9- 4										
27	30- 0- 0	9- 2- 7										
28	30- 0- 0	9- 7-12										
29	30- 0- 0	10- 1- 0										
30	30- 0- 0	10- 6- 6										

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 23 HEIGHT	LONGITUDINAL 23 HALF BREADTH	LONGITUDINAL 24 HEIGHT	LONGITUDINAL 24 HALF BREADTH	LONGITUDINAL 25 HEIGHT	LONGITUDINAL 25 HALF BREADTH	LONGITUDINAL 26 HEIGHT	LONGITUDINAL 26 HALF BREADTH	LONGITUDINAL 27 HEIGHT	LONGITUDINAL 27 HALF BREADTH	LONGITUDINAL 28 HEIGHT	LONGITUDINAL 28 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
31	30- 0- 0	10-11-13										
32	30- 0- 0	11- 5- 4										
33	30- 0- 0	11-10-12										
34	30- 0- 0	12- 4- 5										
35	30- 0- 0	12- 9-14										
36	30- 0- 0	13- 3- 8										
37	30- 0- 0	13- 9- 3										
38	30- 0- 0	14- 2-15										
39	30- 0- 0	14- 8-11										
40	30- 0- 0	15- 2- 8										
41	30- 1- 8	15- 8-15										
42	30- 3- 0	16- 3- 6										
43	30- 4- 8	16- 9-14					39- 0- 0	20- 7- 8	42- 0- 0	22- 1- 4	44-10- 0	23- 7- 2
44	30- 6- 0	17- 4- 6	33- 6- 0	18- 7- 8			39- 0- 0	21- 1-10	42- 0- 0	22- 7- 8	44-10- 0	24- 1- 7
45	30- 6- 0	18-11- 2	33- 6- 0	20- 2- 6			39- 0- 0	22- 8-13	42- 0- 0	24- 2-14	44-10- 0	25- 9- 1
46	30- 6- 0	20- 6- 0	33- 6- 0	21- 9- 5			39- 0- 0	24- 3-13	42- 0- 0	25-10- 0	44-10- 0	27- 4- 3

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 23		LONGITUDINAL 24		LONGITUDINAL 25		LONGITUDINAL 26		LONGITUDINAL 27		LONGITUDINAL 28	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
47	30- 6- 0	22- 0-15	33- 6- 0	23- 4- 4			39- 0- 0	25-10-10	42- 0- 0	27- 4-11	44-10- 0	28-10-13
48	30- 6- 0	23- 7-14	33- 6- 0	24-11- 1			39- 0- 0	27- 5- 3	42- 0- 0	28-11- 0	44-10- 0	30- 4-15
49	30- 6- 0	25- 2-11	33- 6- 0	26- 5-12			39- 0- 0	28-11- 6	42- 0- 0	30- 4-14	44-10- 0	31-10- 7
50	30- 6- 0	26- 9- 7	33- 6- 0	28- 0- 4			39- 0- 0	30- 5- 3	42- 0- 0	31-10- 4	44-10- 0	33- 3- 6
51	30- 6- 0	28- 4- 0	33- 6- 0	29- 6- 7			39- 0- 0	31-10- 9	42- 0- 0	33- 3- 2	44-10- 0	34- 7-11
52	30- 6- 0	29-10- 6	33- 6- 0	31- 0- 6			39- 0- 0	33- 3- 8	42- 0- 0	34- 7- 6	44-10- 0	35-11- 5
53	30- 6- 0	32- 4- 5	33- 6- 0	33- 5- 7			39- 0- 0	35- 6- 8	42- 0- 0	36- 9- 3	44-10- 0	37-11-15
54	30- 6- 0	34- 8-14	33- 6- 0	35- 8-14			39- 0- 0	37- 7-12	42- 0- 0	38- 9- 2	44-10- 0	39-10- 8
55	30- 6- 0	37- 0- 2	33- 6- 0	37-10-15	36- 0- 0	38- 8- 0	39- 0- 0	39- 7- 5	42- 0- 0	40- 7- 4	44-10- 0	41- 7- 2
56	30- 6- 0	39- 1- 7	33- 6- 0	39-11- 1	36- 0- 0	40- 7- 1	39- 0- 0	41- 4-15	42- 0- 0	42- 3- 6	44-10- 0	43- 1-11
57	30- 6- 0	41- 0- 9	33- 6- 0	41- 8-14	36- 0- 0	42- 3-12	39- 0- 0	43- 0- 3	42- 0- 0	43- 9- 2	45- 0- 0	44- 6- 9
58	30- 6- 0	42- 9- 8	33- 6- 0	43- 4- 8	36- 0- 0	43-10- 5	39- 0- 0	44- 5- 6	42- 0- 0	45- 0-13	45- 0- 0	45- 8-11
59	30- 6- 0	44- 4- 0	33- 6- 0	44- 9-13	36- 0- 0	45- 2- 8	39- 0- 0	45- 8- 4	42- 0- 0	46- 2- 5	45- 0- 0	46- 8-13
60	30- 6- 0	45- 8- 1	33- 6- 0	46- 0-12	36- 0- 0	46- 4- 8	39- 0- 0	46- 9- 1	42- 0- 0	47- 1-14	45- 0- 0	47- 7- 2
61	30- 6- 0	46- 9-15	33- 6- 0	47- 1-11	36- 0- 0	47- 4-11	39- 0- 0	47- 8- 5	42- 0- 0	48- 0- 2	45- 0- 0	48- 4- 1
62	30- 6- 0	47- 9-12	33- 6- 0	48- 0-10	36- 0- 0	48- 3- 0	39- 0- 0	48- 5-14	42- 0- 0	48- 8-13	45- 0- 0	48-11-11

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 23		LONGITUDINAL 24		LONGITUDINAL 25		LONGITUDINAL 26		LONGITUDINAL 27		LONGITUDINAL 28	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
63	30- 6- 0	48- 7- 4	33- 6- 0	48- 9- 8	36- 0- 0	48-11- 5	39- 0- 0	49- 1- 8	42- 0- 0	49- 3-10	45- 0- 0	49- 5-10
64	30- 6- 0	49- 2-11	33- 6- 0	49- 4- 6	36- 0- 0	49- 5-11	39- 0- 0	49- 7- 3	42- 0- 0	49- 8- 9	45- 0- 0	49- 9-11
65	30- 6- 0	49- 8- 0	33- 6- 0	49- 9- 3	36- 0- 0	49-10- 0	39- 0- 0	49-10-13	42- 0- 0	49-11- 7	45- 0- 0	49-11-14
66	30- 6- 0	49-11- 0	33- 6- 0	49-11-10	36- 0- 0	49-11-14	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
67	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
68	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
69	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
70	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
71	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
72	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
73	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
74	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
75	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
76	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
77	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
78	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 23		LONGITUDINAL 24		LONGITUDINAL 25		LONGITUDINAL 26		LONGITUDINAL 27		LONGITUDINAL 28	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
79	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
80	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
81	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
82	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
83	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
84	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
85	30- 6- 0	50- 0- 0	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
86	30- 6- 0	49-11-13	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
87	30- 6- 0	49-11- 5	33- 6- 0	50- 0- 0	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
88	30- 6- 0	49-10- 6	33- 6- 0	49-11-15	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
89	30- 6- 0	49- 8-15	33- 6- 0	49-11- 7	36- 0- 0	50- 0- 0	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
90	30- 6- 0	49- 7- 0	33- 6- 0	49-10- 8	36- 0- 0	49-11-13	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
91	30- 6- 0	49- 4- 9	33- 6- 0	49- 9- 1	36- 0- 0	49-11- 2	39- 0- 0	50- 0- 0	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
92	30- 6- 0	49- 1-13	33- 6- 0	49- 7- 3	36- 0- 0	49-10- 0	39- 0- 0	49-11-11	42- 0- 0	50- 0- 0	45- 0- 0	50- 0- 0
93	30- 6- 0	48-10-15	33- 6- 0	49- 5- 3	36- 0- 0	49- 8-10	39- 0- 0	49-11- 1	42- 0- 0	49-11-15	45- 0- 0	50- 0- 0
94	30- 6- 0	48- 8- 0	33- 6- 0	49- 3- 0	36- 0- 0	49- 7- 1	39- 0- 0	49-10- 2	42- 0- 0	49-11-10	45- 0- 0	50- 0- 0

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L O N G I T U D I N A L S

FRM.	LONGITUDINAL 23		LONGITUDINAL 24		LONGITUDINAL 25		LONGITUDINAL 26		LONGITUDINAL 27		LONGITUDINAL 28	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
95	30- 6- 0	48- 5- 1	33- 6- 0	49- 0-13	36- 0- 0	49- 5- 6	39- 0- 0	49- 9- 0	42- 0- 0	49-11- 0	45- 0- 0	49-11-14
96	30- 6- 0	48- 0- 1	33- 6- 0	48- 8-13	36- 0- 0	49- 2- 2	39- 0- 0	49- 6- 9	42- 0- 0	49- 9- 7	45- 0- 0	49-11- 1
97	30- 6- 0	47- 6-11	33- 6- 0	48- 4- 6	36- 0- 0	48-10- 5	39- 0- 0	49- 3- 9	42- 0- 0	49- 7- 3	45- 0- 0	49- 9- 9
98	30- 6- 0	47- 0- 8	33- 6- 0	47-11- 5	36- 0- 0	48- 6- 1	39- 0- 0	49- 0- 1	42- 0- 0	49- 4- 7	45- 0- 0	49- 7- 9
99	30- 6- 0	46- 5- 1	33- 6- 0	47- 5- 7	36- 0- 0	48- 1- 2	39- 0- 0	48- 8- 2	42- 0- 0	49- 1- 4	45- 0- 0	49- 5- 0
100	30- 6- 0	45- 8- 8	33- 6- 0	46-10- 9	36- 0- 0	47- 7- 6	39- 0- 0	48- 3- 7	42- 0- 0	48- 9- 7	45- 0- 0	49- 1-14
101	30- 6- 0	44-10- 7	33- 6- 0	46- 2- 8	36- 0- 0	47- 0- 9	39- 0- 0	47- 9-12	42- 0- 0	48- 4-11	45- 0- 0	48- 9-15
102	30- 6- 0	44- 7- 3	33- 6- 0	45-11-15	36- 0- 4	46-10- 6	39- 0- 1	47- 7-13	42- 0- 0	48- 3- 0	45- 0- 0	48- 8- 7
103	30- 6- 1	44- 3-14	33- 6- 0	45- 9- 6	36- 0- 8	46- 8- 4	39- 0- 2	47- 5-12	42- 0- 0	48- 1- 2	45- 0- 0	48- 6-13
104	30- 6-12	44- 0-13	33- 6- 4	45- 6-12	36- 0-12	46- 6- 0	39- 0- 4	47- 3-11	42- 0- 0	47-11- 4	45- 0- 0	48- 5- 2
105	30- 7- 8	43- 9-13	33- 6- 8	45- 3-14	36- 1- 0	46- 3- 8	39- 0- 5	47- 1- 9	42- 0- 0	47- 9- 5	45- 0- 0	48- 3- 6
106	30- 8- 4	43- 6-11	33- 6-12	45- 0-14	36- 1- 5	46- 0-14	39- 0- 6	46-11- 6	42- 0- 0	47- 7- 6	45- 0- 0	48- 1- 9
107	30- 9- 1	43- 3- 7	33- 7- 1	44-10- 0	36- 1- 9	45-10- 7	39- 0- 8	46- 9- 3	42- 0- 0	47- 5- 6	45- 0- 0	47-11-11
108	30- 9-14	42-11-15	33- 7- 5	44- 7- 0	36- 1-14	45- 7-15	39- 0- 9	46- 7- 0	42- 0- 0	47- 3- 5	45- 0- 0	47- 9-11
109	30-10-12	42- 8- 6	33- 7-10	44- 3-12	36- 2- 2	45- 5- 6	39- 0-10	46- 4-14	42- 0- 0	47- 1- 3	45- 0- 0	47- 7- 9
110	30-11-10	42- 4-13	33- 7-15	44- 0- 9	36- 2- 7	45- 2-10	39- 0-12	46- 2- 7	42- 0- 0	46-11- 0	45- 0- 0	47- 5- 7

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LONGITUDINALS

FRM.	LONGITUDINAL 23 HEIGHT	LONGITUDINAL 23 HALF BREADTH	LONGITUDINAL 24 HEIGHT	LONGITUDINAL 24 HALF BREADTH	LONGITUDINAL 25 HEIGHT	LONGITUDINAL 25 HALF BREADTH	LONGITUDINAL 26 HEIGHT	LONGITUDINAL 26 HALF BREADTH	LONGITUDINAL 27 HEIGHT	LONGITUDINAL 27 HALF BREADTH	LONGITUDINAL 28 HEIGHT	LONGITUDINAL 28 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
127			35- 1-10	37- 9-12	37- 5-15	40- 1-14	39- 7- 5	41- 7-10	42- 0- 0	42-10- 4	45- 0- 0	43-10-11
128			35- 5- 9	37- 7- 0	37- 9- 4	39-11- 1	39- 9- 0	41- 4- 5	42- 0- 0	42- 6-15	45- 0- 0	43- 8- 2
129			35- 9- 9	37- 4- 4	38- 0- 9	39- 8- 5	39-10-11	41- 1- 1	42- 0- 0	42- 3- 7	45- 0- 0	43- 5- 5
130			36- 1- 9	37- 1- 7	38- 3-13	39- 5- 9	40- 0- 6	40- 9-13	42- 0- 0	42- 0- 0	45- 0- 0	43- 2- 8
131			36- 5- 5	36-10-14	38- 7- 2	39- 2-12	40- 2- 3	40- 6- 3	42- 0- 0	41- 8- 1	45- 0- 0	42-11-13
132			36- 9- 0	36- 8- 4	38-10- 3	39- 0- 2	40- 3-14	40- 3- 0	42- 0- 0	41- 4- 6	45- 0- 0	42- 9- 0

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LONGITUDINALS

FRM.	LONGITUDINAL 23 HEIGHT	LONGITUDINAL 23 HALF BREADTH	LONGITUDINAL 24 HEIGHT	LONGITUDINAL 24 HALF BREADTH	LONGITUDINAL 25 HEIGHT	LONGITUDINAL 25 HALF BREADTH	LONGITUDINAL 26 HEIGHT	LONGITUDINAL 26 HALF BREADTH	LONGITUDINAL 27 HEIGHT	LONGITUDINAL 27 HALF BREADTH	LONGITUDINAL 28 HEIGHT	LONGITUDINAL 28 HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
111	31- 0- 9	42- 0-15	33- 8- 4	43- 9- 0	36- 2-13	44-11-11	39- 0-13	45-11-14	42- 0- 0	46- 8-11	45- 0- 0	47- 3- 5
112	31- 1- 9	41- 8-15	33- 8- 9	43- 5- 9	36- 3- 2	44- 8-12	39- 0-15	45- 9- 4	42- 0- 0	46- 6- 5	45- 0- 0	47- 1- 2
113	31- 2- 9	41- 4-13	33- 8-15	43- 1-13	36- 3- 8	44- 5-10	39- 1- 1	45- 6- 7	42- 0- 0	46- 3-14	45- 0- 0	46-10-15
114	31- 3- 9	41- 0-12	33- 9- 4	42-10- 3	36- 3-13	44- 2- 7	39- 1- 3	45- 3- 7	42- 0- 0	46- 1- 4	45- 0- 0	46- 8-10
115	31- 4-11	40- 8- 1	33- 9-10	42- 6- 2	36- 4- 3	43-11- 1	39- 1- 4	45- 0- 7	42- 0- 0	45-10-10	45- 0- 0	46- 6- 4
116	31- 5-15	40- 3- 0	33-10- 1	42- 1-12	36- 4-10	43- 7- 8	39- 1- 6	44- 9- 4	42- 0- 0	45- 7-13	45- 0- 0	46- 3-13
117	31- 7- 2	39-10- 1	33-10- 7	41- 9-10	36- 5- 0	43- 4- 0	39- 1- 9	44- 5-15	42- 0- 0	45- 4-15	45- 0- 0	46- 1- 6
118	31- 8- 7	39- 4-12	33-10-14	41- 4-14	36- 5- 7	43- 0- 3	39- 1-11	44- 2- 9	42- 0- 0	45- 2- 0	45- 0- 0	45-10-13
119	31- 9-14	38-10-11	33-11- 7	40-11- 6	36- 5-15	42- 7-15	39- 1-13	43-11- 1	42- 0- 0	44-11- 0	45- 0- 0	45- 8- 2
120	31-11- 6	38- 4- 9	33-11-15	40- 5-15	36- 6- 6	42- 3-12	39- 1-15	43- 7- 7	42- 0- 0	44- 8- 0	45- 0- 0	45- 5- 8
121	32- 0-15	37-10- 2	34- 0- 7	40- 0- 4	36- 6-14	41-11- 7	39- 2- 1	43- 3-11	42- 0- 0	44- 4-14	45- 0- 0	45- 2-14
122	32- 2- 8	37- 3-13	34- 1- 0	39- 6-11	36- 7- 6	41- 7- 4	39- 2- 3	43- 0- 5	42- 0- 0	44- 1-15	45- 0- 0	45- 0- 4
123	32- 4- 1	36- 9- 4	34- 1- 9	39- 0- 9	36- 7-14	41- 2-14	39- 2- 6	42- 8-13	42- 0- 0	43-10-15	45- 0- 0	44- 9- 8
124	32- 5-11	36- 2-11	34- 2- 2	38- 6- 5	36- 8- 6	40-10- 5	39- 2- 8	42- 5- 3	42- 0- 0	43- 7-15	45- 0- 0	44- 6-12
125	32- 7- 5	35- 7-14	34- 5-12	38- 3- 4	36-11- 6	40- 7- 6	39- 4- 0	42- 2- 1	42- 0- 0	43- 4-13	45- 0- 0	44- 4- 2
126			34- 9-11	38- 0- 8	37- 2-10	40- 4-10	39- 5-11	41-10-14	42- 0- 0	43- 1- 9	45- 0- 0	44- 1- 7

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LONGITUDINALS

FRM.	LONGITUDINAL 29 HEIGHT	LONGITUDINAL 29 HALF BREADTH	LONGITUDINAL 30 HEIGHT	LONGITUDINAL 30 HALF BREADTH	LONGITUDINAL 31 HEIGHT	LONGITUDINAL 31 HALF BREADTH	LONGITUDINAL 32 HEIGHT	LONGITUDINAL 32 HALF BREADTH	LONGITUDINAL 33 HEIGHT	LONGITUDINAL 33 HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16		
43	47- 6- 0	25- 1- 0			52- 6- 0	28- 1- 5	55- 0- 0	29- 8-15	57- 9- 0	31- 7-12		
44	47- 6- 0	25- 7- 6			52- 6- 0	28- 7-13	55- 0- 0	30- 3- 9	57- 9- 0	32- 2- 7		
45	47- 6- 0	27- 3- 2			52- 6- 0	30- 3-14	55- 0- 0	31-11-11	57- 9- 0	33-10-11		
46	47- 6- 0	28-10- 5			52- 6- 0	31-11- 1	55- 0- 0	33- 6-14	57- 9- 0	35- 5-14		
47	47- 6- 0	30- 4-14			52- 6- 0	33- 5- 7	55- 0- 0	35- 1- 3	57- 9- 0	37- 0- 0		
48	47- 6- 0	31-10-12			52- 6- 0	34-10-15	55- 0- 0	36- 6- 7	57- 9- 0	38- 5- 1		
49	47- 6- 0	33- 3-15			52- 6- 0	36- 3- 7	55- 0- 0	37-10-10	57- 9- 0	39- 8-14		
50	47- 6- 0	34- 8- 7			52- 6- 0	37- 7- 1	55- 0- 0	39- 1-12	57- 9- 0	40-11- 7		
51	47- 6- 0	36- 0- 3			52- 6- 0	38- 9-11	55- 0- 0	40- 3-13	57- 9- 0	42- 0-13		
52	47- 6- 0	37- 3- 3			52- 6- 0	39-11- 6	55- 0- 0	41- 4-12	57- 9- 0	43- 0-14		
53	47- 6- 0	39- 2-10			52- 6- 0	41- 8- 3	55- 0- 0	43- 0- 1	57- 9- 0	44- 6- 6		
54	47- 6- 0	40-11-12			52- 6- 0	43- 2- 4	55- 0- 0	44- 4- 6	57- 9- 0	45- 8- 9		
55	47- 6- 0	42- 6-14			52- 6- 0	44- 6- 1	55- 0- 0	45- 6- 5	57- 9- 0	46- 8- 4		
56	47- 6- 0	43-11-14			52- 6- 0	45- 7-12	55- 0- 0	46- 6- 3	57- 9- 0	47- 5-15		
57	47- 6- 0	45- 2-11			52- 6- 0	46- 7- 7	55- 0- 0	47- 4- 2	57- 6- 0	48- 0-15		
58	47- 6- 0	46- 3- 8			52- 6- 0	47- 5- 8	55- 0- 0	48- 0- 9	57- 6- 0	48- 7-10		

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LONGITUDINALS

FRM.	LONGITUDINAL 29 HEIGHT	LONGITUDINAL 29 HALF BREADTH	LONGITUDINAL 30 HEIGHT	LONGITUDINAL 30 HALF BREADTH	LONGITUDINAL 31 HEIGHT	LONGITUDINAL 31 HALF BREADTH	LONGITUDINAL 32 HEIGHT	LONGITUDINAL 32 HALF BREADTH	LONGITUDINAL 33 HEIGHT	LONGITUDINAL 33 HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16		
59	47- 6- 0	47- 2- 7	50- 0- 0	47- 8- 2	52- 6- 0	48- 1-14	55- 0- 0	48- 7- 9	57- 6- 0	49- 1- 5		
60	47- 6- 0	47-11-10	50- 0- 0	48- 4- 2	52- 6- 0	48- 8-11	55- 0- 0	49- 1- 4	57- 6- 0	49- 5-14		
61	47- 6- 0	48- 7- 7	50- 0- 0	48-10-13	52- 6- 0	49- 2- 2	55- 0- 0	49- 5- 7	57- 6- 0	49- 8-11		
62	47- 6- 0	49- 2- 1	50- 0- 0	49- 4- 4	52- 6- 0	49- 6- 5	55- 0- 0	49- 8- 5	57- 6- 0	49-10- 3		
63	47- 6- 0	49- 7- 2	50- 0- 0	49- 8- 7	52- 6- 0	49- 9-10	55- 0- 0	49-10-10	57- 6- 0	49-11- 6		
64	47- 6- 0	49-10- 8	50- 0- 0	49-11- 2	52- 6- 0	49-11-10	55- 0- 0	49-11-14	57- 6- 0	50- 0- 0		
65	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
66	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
67	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
68	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
69	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
70	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
71	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
72	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
73	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
74	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		

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LONGITUDINALS

FRM.	LONGITUDINAL 29 HEIGHT	HALF BREADTH	LONGITUDINAL 30 HEIGHT	HALF BREADTH	LONGITUDINAL 31 HEIGHT	HALF BREADTH	LONGITUDINAL 32 HEIGHT	HALF BREADTH	LONGITUDINAL 33 HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16		
75	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
76	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
77	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
78	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
79	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
80	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
81	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
82	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
83	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
84	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
85	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
86	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
87	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
88	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
89	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
90	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		

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LONGITUDINALS

FRM.	LONGITUDINAL 29 HEIGHT	HALF BREADTH	LONGITUDINAL 30 HEIGHT	HALF BREADTH	LONGITUDINAL 31 HEIGHT	HALF BREADTH	LONGITUDINAL 32 HEIGHT	HALF BREADTH	LONGITUDINAL 33 HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16		
91	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
92	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
93	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
94	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
95	47- 6- 0	50- 0- 0	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
96	47- 6- 0	49-11-12	50- 0- 0	50- 0- 0	52- 6- 0	50- 0- 0	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
97	47- 6- 0	49-10-14	50- 0- 0	49-11-10	52- 6- 0	49-11-15	55- 0- 0	50- 0- 0	57- 6- 0	50- 0- 0		
98	47- 6- 0	49- 9- 6	50- 0- 0	49-10- 9	52- 6- 0	49-11- 4	55- 0- 0	49-11-10	57- 6- 0	49-11-14		
99	47- 6- 0	49- 7- 4	50- 0- 0	49- 8-14	52- 6- 0	49- 9-15	55- 0- 0	49-10-10	57- 6- 0	49-11- 2		
100	47- 6- 0	49- 4-10	50- 0- 0	49- 6-10	52- 6- 0	49- 8- 1	55- 0- 0	49- 9- 2	57- 6- 0	49- 9-14		
101	47- 6- 0	49- 1- 4	50- 0- 0	49- 3-13	52- 6- 0	49- 5-11	55- 0- 0	49- 7- 1	57- 6- 0	49- 8- 1		
102	47- 6- 0	48-11-15	50- 0- 0	49- 2-10	52- 6- 0	49- 4- 9	55- 0- 0	49- 6- 2	57- 6- 0	49- 7- 4		
103	47- 6- 0	48-10- 7	50- 0- 0	49- 1- 4	52- 6- 0	49- 3- 6	55- 0- 0	49- 5- 0	57- 6- 0	49- 6- 5		
104	47- 6- 0	48- 8-15	50- 0- 0	48-11-14	52- 6- 0	49- 2- 2	55- 0- 0	49- 3-15	57- 6- 0	49- 5- 7		
105	47- 6- 0	48- 7- 5	50- 0- 0	48-10- 7	52- 6- 0	49- 0-14	55- 0- 0	49- 2-14	57- 6- 0	49- 4- 7		
106	47- 6- 0	48- 5-10	50- 0- 0	48- 8-15	52- 6- 0	48-11- 8	55- 0- 0	49- 1- 9	57- 6- 0	49- 3- 5		

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FRM.	LONGITUDINAL 29 HEIGHT	HALF BREADTH	LONGITUDINAL 30 HEIGHT	HALF BREADTH	LONGITUDINAL 31 HEIGHT	HALF BREADTH	LONGITUDINAL 32 HEIGHT	HALF BREADTH	LONGITUDINAL 33 HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16		
107	47- 6- 0	48- 3-14	50- 0- 0	48- 7- 4	52- 6- 0	48- 9-14	55- 0- 0	49- 0- 1	57- 6- 0	49- 1-15		
108	47- 6- 0	48- 1-15	50- 0- 0	48- 5- 7	52- 6- 0	48- 8- 3	55- 0- 0	48-10- 8	57- 6- 0	49- 0- 8		
109	47- 6- 0	47-11-15	50- 0- 0	48- 3- 9	52- 6- 0	48- 6- 8	55- 0- 0	48- 8-15	57- 6- 0	48-11- 2		
110	47- 6- 0	47- 9-15	50- 0- 0	48- 1-12	52- 6- 0	48- 4-13	55- 0- 0	48- 7- 6	57- 6- 0	48- 9-11		
111	47- 6- 0	47- 7-15	50- 0- 0	47-11-14	52- 6- 0	48- 3- 1	55- 0- 0	48- 5-12	57- 6- 0	48- 8- 3		
112	47- 6- 0	47- 5-14	50- 0- 0	47- 9-14	52- 6- 0	48- 1- 3	55- 0- 0	48- 4- 0	57- 6- 0	48- 6- 9		
113	47- 6- 0	47- 3-11	50- 0- 0	47- 7-11	52- 6- 0	47-11- 2	55- 0- 0	48- 2- 2	57- 6- 0	48- 4-12		
114	47- 6- 0	47- 1- 8	50- 0- 0	47- 5- 8	52- 6- 0	47- 9- 0	55- 0- 0	48- 0- 2	57- 6- 0	48- 2-15		
115	47- 6- 0	46-11- 3	50- 0- 0	47- 3- 4	52- 6- 0	47- 6-13	55- 0- 0	47-10- 1	57- 6- 0	48- 1- 0		
116	47- 6- 0	46- 8-13	50- 0- 0	47- 0-15	52- 6- 0	47- 4- 9	55- 0- 0	47- 7-15	57- 6- 0	47-11- 0		
117	47- 6- 0	46- 6- 8	50- 0- 0	46-10- 9	52- 6- 0	47- 2- 5	55- 0- 0	47- 5-12	57- 6- 0	47- 8-15		
118	47- 6- 0	46- 4- 0	50- 0- 0	46- 8- 3	52- 6- 0	46-11-15	55- 0- 0	47- 3- 8	57- 6- 0	47- 6-13		
119	47- 6- 0	46- 1- 8	50- 0- 0	46- 5-13	52- 6- 0	46- 9-10	55- 0- 0	47- 1- 4	57- 6- 0	47- 4-10		
120	47- 6- 0	45-11- 1	50- 0- 0	46- 3- 7	52- 6- 0	46- 7- 5	55- 0- 0	46-11- 0	57- 6- 0	47- 2- 7		
121	47- 6- 0	45- 8-10	50- 0- 0	46- 1- 0	52- 6- 0	46- 4-15	55- 0- 0	46- 8-10	57- 6- 0	47- 0- 2		
122	47- 6- 0	45- 6- 3	50- 0- 0	45-10-11	52- 6- 0	46- 2-11	55- 0- 0	46- 6- 6	57- 6- 0	46- 9-15		

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LONGITUDINALS

FRM.	LONGITUDINAL 29 HEIGHT	HALF BREADTH	LONGITUDINAL 30 HEIGHT	HALF BREADTH	LONGITUDINAL 31 HEIGHT	HALF BREADTH	LONGITUDINAL 32 HEIGHT	HALF BREADTH	LONGITUDINAL 33 HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16		
123	47- 6- 0	45- 3- 9	50- 0- 0	45- 8- 3	52- 6- 0	46- 0- 5	55- 0- 0	46- 4- 2	57- 6- 0	46- 7-12		
124	47- 6- 0	45- 1- 0	50- 0- 0	45- 5-12	52- 6- 0	45- 9-15	55- 0- 0	46- 1-13	57- 6- 0	46- 5- 9		
125	47- 6- 0	44-10- 8	50- 0- 0	45- 3- 6	52- 6- 0	45- 7- 9	55- 0- 0	45-11- 8	57- 6- 0	46- 3- 5		
126	47- 6- 0	44- 8- 1	50- 0- 0	45- 0-14	52- 6- 0	45- 5- 2	55- 0- 0	45- 9- 2	57- 6- 0	46- 1- 0		
127	47- 6- 0	44- 5- 8	50- 0- 0	44-10- 8	52- 6- 0	45- 2-12	55- 0- 0	45- 6-12	57- 6- 0	45-10-10		
128	47- 6- 0	44- 3- 1	50- 0- 0	44- 7-15	52- 6- 0	45- 0- 4	55- 0- 0	45- 4- 6	57- 6- 0	45- 8- 6		
129	47- 6- 0	44- 0- 8	50- 0- 0	44- 5- 8	52- 6- 0	44- 9-13	55- 0- 0	45- 1-15	57- 6- 0	45- 6- 0		
130	47- 6- 0	43-10- 1	50- 0- 0	44- 3- 4	52- 6- 0	44- 7- 9	55- 0- 0	44-11-10	57- 6- 0	45- 3-10		
131	47- 6- 0	43- 7-12	50- 0- 0	44- 0-15	52- 6- 0	44- 5- 4	55- 0- 0	44- 9- 4	57- 6- 0	45- 1- 4		
132	47- 6- 0	43- 5- 6	50- 0- 0	43-10-13	52- 6- 0	44- 3- 1	55- 0- 0	44- 6-15	57- 6- 0	44-10-14		

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MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 34

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MOLD LOFT OFFSETS

PAGE NO. 125

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
8	1- 0- 2	3- 2- 7	8- 4- 2	6- 1- 3	3-11- 0	5- 6- 0	12- 3-10	4- 7-11				
9	1- 0- 4	3- 2-12	8- 3-10	6- 1- 4	3-11- 0	5- 6- 3	12- 3- 4	4- 8- 5				
10	1- 0- 5	3- 3- 0	8- 3- 2	6- 1- 4	3-11- 0	5- 6- 4	12- 2-14	4- 9- 1				
11	1- 0- 3	3- 3- 0	8- 2- 9	6- 1- 6	3-11- 0	5- 6- 6	12- 2- 8	4- 9-13				
12	1- 0- 1	3- 3- 0	8- 1-14	6- 1- 7	3-11- 0	5- 6- 6	12- 2- 3	4-10-11				
13	0-11-15	3- 3- 0	8- 1- 4	6- 1-10	3-11- 0	5- 6- 6	12- 1-15	4-11- 9				
14	0-11-12	3- 3- 0	8- 0-10	6- 1-13	3-11- 0	5- 6- 6	12- 1-10	5- 0- 8				
15	0-11-10	3- 3- 0	8- 0- 0	6- 2- 0	3-11- 0	5- 6- 7	12- 1- 5	5- 1- 8				
16	0-11- 7	3- 3- 0	7-11- 6	6- 2- 4	3-11- 0	5- 6- 9	12- 1- 0	5- 2- 9				
17	0-11- 3	3- 3- 0	7-10-11	6- 2- 8	3-11- 0	5- 6-11	12- 0-11	5- 3-12				
18	0-10-15	3- 3- 0	7-10- 0	6- 2-13	3-11- 0	5- 6-15	12- 0- 7	5- 5- 0				
19	0-10-11	3- 3- 0	7- 9- 6	6- 3- 4	3-11- 0	5- 7- 5	12- 0- 0	5- 6- 6				
20	0-10- 6	3- 3- 0	7- 8-12	6- 3-11	3-11- 0	5- 7-11	11-11- 8	5- 7-13				
21	0-10- 0	3- 3- 0	7- 8- 2	6- 4- 3	3-11- 0	5- 8- 2	11-10-14	5- 9- 5				
22	0- 9- 8	3- 3- 0	7- 7- 6	6- 4-15			11-10- 1	5-11- 3				
23	0- 9- 0	3- 3- 0	7- 6- 8	6- 5-12			11- 9- 5	6- 1- 2				

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MOLD LOFT OFFSETS

PAGE NO. 124

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
-8	5- 9-14	1- 2-11	9- 7- 8	2- 3- 8	7- 5- 8	2- 4-15						
-7	3- 7- 5	1- 5- 5	9- 3- 8	4- 0- 0	6- 2- 1	3-10-14	13- 5- 1	1- 0- 0				
-6	2- 5- 6	1- 7-12	9- 0-14	4- 9-12	5- 4- 4	4- 6-10	13- 2- 3	2- 8- 7				
-5	1- 9- 3	1-10- 2	8-11- 7	5- 2-11	4-10-11	4-10- 7	13- 0- 0	3- 5- 7				
-4	1- 3- 6	2- 0- 5	8-10-12	5- 5- 3	4- 7- 8	5- 1- 7	12-10- 6	3- 9-10				
-3	0-11- 2	2- 2- 6	8-10- 3	5- 7- 0	4- 5- 3	5- 3-13	12- 9- 6	4- 0- 4				
-2	0- 9- 3	2- 4- 5	8- 9-11	5- 8- 7	4- 3- 7	5- 5- 2	12- 8-11	4- 2- 2				
-1	0- 8-12	2- 6- 1	8- 9- 4	5- 9-14	4- 2- 2	5- 5-11	12- 8- 1	4- 3- 2				
0	0- 9- 2	2- 7-10	8- 8-12	5-10-13	4- 1- 2	5- 5-10	12- 7- 6	4- 3-14				
1	0- 9-11	2- 8-15	8- 8- 3	5-11-10	4- 0- 7	5- 5- 8	12- 6-12	4- 4- 4				
2	0-10- 4	2-10- 3	8- 7-10	6- 0- 1	4- 0- 0	5- 5- 9	12- 6- 1	4- 4-13				
3	0-10-12	2-11- 4	8- 7- 1	6- 0- 8	3-11-12	5- 5-10	12- 5- 9	4- 5- 5				
4	0-11- 4	3- 0- 4	8- 6- 7	6- 0-12	3-11- 8	5- 5-12	12- 5- 3	4- 5-12				
5	0-11- 9	3- 1- 0	8- 5-13	6- 0-14	3-11- 5	5- 5-13	12- 4-12	4- 6- 3				
6	0-11-13	3- 1- 9	8- 5- 4	6- 1- 0	3-11- 2	5- 5-14	12- 4- 6	4- 6-11				
7	1- 0- 0	3- 2- 1	8- 4-11	6- 1- 1	3-11- 0	5- 5-15	12- 4- 0	4- 7- 2				

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MOLD LOFT OFFSETS

PAGE NO. 126

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
24	0- 8- 8	3- 3- 0	7- 5- 9	6- 6-10			11- 8-10	6- 3- 2				
25	0- 8- 0	3- 3- 0	7- 4- 9	6- 7-10			11- 7-10	6- 5- 5				
26	0- 7- 7	3- 3- 0	7- 3- 8	6- 8-11			11- 6- 9	6- 7- 8				
27	0- 6-15	3- 3- 0	7- 2- 7	6- 9-13			11- 5- 8	6- 9-12				
28	0- 6- 6	3- 3- 0	7- 1- 4	6-11- 1			11- 4- 5	7- 0- 1				
29	0- 5-14	3- 3- 0	7- 0- 1	7- 0- 7			11- 3- 2	7- 2- 7				
30	0- 5- 6	3- 3- 0	6-10-14	7- 1-14			11- 1-14	7- 4-14				
31	0- 4-14	3- 3- 0	6- 9-10	7- 3- 6			11- 0- 9	7- 7- 6				
32	0- 4- 7	3- 3- 0	6- 8- 3	7- 4-15			10-11- 4	7- 9-15				
33	0- 4- 0	3- 3- 0	6- 6-12	7- 6- 9			10- 9-13	8- 0- 9				
34	0- 3- 9	3- 3- 0	6- 5- 3	7- 8- 5			10- 8- 6	8- 3- 4				
35	0- 3- 3	3- 3- 0	6- 3-11	7-10- 1			10- 6-14	8- 6- 0				
36	0- 2-13	3- 3- 0	6- 2- 2	7-11-14			10- 5- 4	8- 8-13				
37	0- 2- 8	3- 3- 0	6- 0- 9	8- 1-12			10- 3-10	8-11-11				
38	0- 2- 3	3- 3- 0	5-10-14	8- 3- 9			10- 1-15	9- 2- 9				
39	0- 1-15	3- 3- 0	5- 9- 3	8- 5- 7			10- 0- 3	9- 5- 9				

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MOLD LOFT OFFSETS

PAGE NO. 127

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
40	0- 1-11	3- 3- 0	5- 7- 7	8- 7- 5			9-10- 5	9- 8-10				
41	0- 1- 7	3- 3- 0	5- 5-11	8- 9- 3			9- 8- 7	9-11-11				
42	0- 1- 4	3- 3- 0	5- 3-14	8-11- 0			9- 6- 8	10- 2-12				
43	0- 1- 1	3- 3- 0	5- 2- 1	9- 0-12			9- 4- 8	10- 5-14				
44	0- 0-15	3- 3- 0	5- 0- 4	9- 2- 8			9- 2- 8	10- 9- 0				
45	0- 0- 8	3- 3- 0	4- 6-11	9- 7- 7			8- 8- 0	11- 6-11	11- 9- 2	12- 6-12		
46	0- 0- 4	3- 3- 0	4- 1- 7	9-11- 9			8- 1- 8	12- 3-14	11- 3- 4	13- 6-14		
47	0- 0- 2	3- 3- 0	3- 8- 7	10- 3- 0			7- 7- 2	13- 0- 9	10- 9- 3	14- 6-15		
48	0- 0- 1	3- 3- 0	3- 3-11	10- 5-13			7- 0-15	13- 8-10	10- 3- 2	15- 6-12		
49	0- 0- 0	3- 3- 0	2-11- 2	10- 8- 2			6- 7- 0	14- 4- 2	9- 9- 2	16- 6- 4		
50	0- 0- 0	3- 3- 0	2- 6-12	10-10- 1			6- 1- 2	14-11- 3	9- 3- 2	17- 5- 6		
51	0- 0- 0	3- 3- 0	2- 2- 8	10-11-11			5- 7- 5	15- 6- 1	8- 9- 3	18- 4- 5		
52	0- 0- 0	3- 3- 0	1-10- 5	11- 1- 2			5- 1- 5	16- 0-12	8- 3- 3	19- 3- 3		
53	0- 0- 0	3- 3- 0	1- 3-15	11- 2-15			4- 3- 2	16-11- 5	7- 4-15	20- 9- 0		
54	0- 0- 0	3- 3- 0	0-11- 3	11- 4- 1			3- 5- 4	17- 8- 9	6- 6- 8	22- 2- 2		
55	0- 0- 0	3- 3- 0	0- 8- 1	11- 4- 9			2- 8- 0	18- 4- 2	5- 7-10	23- 6- 2		

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M O L D   L O F T   O F F S E T S

WATERMAN LASH

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S I G H T   E D G E S

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
72	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 4	27- 8-12	1- 8- 7	35- 9-10
73	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 4	27- 8-12	1- 8- 7	35- 9-10
74	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 4	27- 8-12	1- 8- 7	35- 9-10
75	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 4	27- 8-12	1- 8- 7	35- 9-10
76	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 4	27- 8-12	1- 8- 7	35- 9-10
77	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 5	27- 8-13	1- 8-12	35- 9- 8
78	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 6	19- 7- 0	0- 5- 9	27- 8-12	1- 9-12	35- 9- 4
79	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0-10	19- 7- 0	0- 6- 0	27- 8-11	1-11- 6	35- 8-13
80	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0-14	19- 7- 0	0- 6-14	27- 8-10	2- 1-11	35- 8- 2
81	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 1- 3	19- 7- 0	0- 8- 8	27- 8- 6	2- 5- 1	35- 7- 4
82	0- 0- 0	3- 3- 0-	0- 0- 0	11- 5- 0			0- 1-14	19- 7- 0	0-11- 5	27- 8- 0	2- 9-13	35- 5-15
83	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 3- 5	19- 7- 0	1- 3- 5	27- 7- 7	3- 4- 1	35- 4- 3
84	0- 0- 0	3- 3- 0	0- 0- 6	11- 5- 1			0- 6- 1	19- 7- 0	1- 8-14	27- 6-11	3-11-11	35- 2- 2
85	0- 0- 0	3- 3- 0	0- 2- 0	11- 5- 5			0-10-15	19- 7- 0	2- 4- 1	27- 5-12	4- 8-12	34-11-10
86	0- 0- 0	3- 3- 0	0- 4- 2	11- 5-11			1- 3- 0	19- 7- 0	2- 9- 2	27- 5- 1	5- 2-13	34- 9-15
87	0- 0- 0	3- 3- 0	0- 7- 5	11- 6- 4			1- 7-11	19- 7- 0	3- 2-13	27- 4- 4	5- 9- 4	34- 8- 3

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M O L D   L O F T   O F F S E T S

WATERMAN LASH

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S I G H T   E D G E S

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
56	0- 0- 0	3- 3- 0	0- 6- 4	11- 4-13			2- 0- 6	18- 9- 6	4- 8-11	24- 8- 5		
57	0- 0- 0	3- 3- 0	0- 5- 1	11- 4-14			1- 6-12	19- 0- 8	3-10- 3	25- 7-14		
58	0- 0- 0	3- 3- 0	0- 4- 0	11- 4-15			1- 2-15	19- 2- 6	3- 0-12	26- 4- 9		
59	0- 0- 0	3- 3- 0	0- 3- 0	11- 5- 0			1- 0- 3	19- 3- 8	2- 5- 4	26-10- 4		
60	0- 0- 0	3- 3- 0	0- 2- 0	11- 5- 0			0- 9-14	19- 4- 6	1-11-11	27- 1-12		
61	0- 0- 0	3- 3- 0	0- 1- 1	11- 5- 0			0- 7-10	19- 5- 2	1- 7- 3	27- 4- 1		
62	0- 0- 0	3- 3- 0	0- 0- 7	11- 5- 0			0- 5- 6	19- 5-13	1- 3- 6	27- 5-11	3- 3-15	35- 5-10
63	0- 0- 0	3- 3- 0	0- 0- 1	11- 5- 0			0- 3- 9	19- 6- 4	1- 0- 2	27- 6-14	2- 9- 4	35- 7- 0
64	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 2- 2	19- 6- 9	0- 9- 7	27- 7-11	2- 4- 6	35- 8- 0
65	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 1- 3	19- 6-13	0- 7- 7	27- 8- 4	2- 0-15	35- 8-11
66	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0-10	19- 6-15	0- 6- 2	27- 8- 9	1-10-12	35- 9- 2
67	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 6	19- 6-15	0- 5- 6	27- 8-12	1- 9- 6	35- 9- 6
68	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 4	19- 7- 0	0- 5- 1	27- 8-13	1- 8-12	35- 9- 9
69	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 4	19- 7- 0	0- 5- 1	27- 8-13	1- 8- 8	35- 9- 9
70	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 4	27- 8-12	1- 8- 7	35- 9-10
71	0- 0- 0	3- 3- 0	0- 0- 0	11- 5- 0			0- 0- 3	19- 7- 0	0- 5- 4	27- 8-12	1- 8- 7	35- 9-10

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M O L D   L O F T   O F F S E T S

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S I G H T   E D G E S

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
88			0-11- 8	11- 6-15			2- 0-15	19- 7- 0	3- 9- 0	27- 3- 7	6- 4- 1	34- 6- 5
89			1- 4- 7	11- 7-12			2- 6-12	19- 7- 0	4- 3-11	27- 2- 9	6-11- 5	34- 4- 5
90			1- 9-12	11- 8-11			3- 0-15	19- 7- 0	4-10-13	27- 1- 9	7- 6-14	34- 2- 3
91			2- 3- 3	11- 9- 9			3- 7- 9	19- 7- 0	5- 6- 4	27- 0- 9	8- 2-12	34- 0- 1
92			2- 9- 3	11-10-10			4- 2-10	19- 7- 0	6- 2- 2	26-11- 8	8-10-15	33- 9-13
93			3- 4- 0	11-11-12			4-10- 2	19- 7- 0	6-10- 4	26-10- 6	9- 7- 4	33- 7- 8
94			3-11- 5	12- 1- 0			5- 6- 2	19- 7- 0	7- 6-10	26- 9- 4	10- 3-10	33- 5- 3
95			4- 7- 8	12- 2- 6			6- 2-11	19- 7- 0	8- 3- 3	26- 8- 2	11- 0- 0	33- 2-14
96			6- 0- 0	12- 5- 2			7- 6- 0	19- 7- 0	9- 6- 1	26- 6- 2	12- 2- 2	32-11- 0
97			7- 6-14	12- 8- 5			8-10-15	19- 7- 0	10- 9- 9	26- 4- 0	13- 4- 4	32- 7- 2
98			9- 3- 3	12-11-12			10- 5-10	19- 7- 0	12- 1-14	26- 1-13	14- 7- 1	32- 3- 1
99			11- 1-10	13- 3- 9			12- 1- 8	19- 7- 0	13- 7- 8	25-11- 7	15-10-10	31-10-12
100			12-11-15	13- 7- 5			13-10-11	19- 7- 0	15- 2-11	25- 8-13	17- 2- 9	31- 6- 6
101			14-11- 5	13-11- 4			15- 8- 8	19- 7- 0	16-10- 2	25- 6- 3	18- 6-14	31- 1-14
102			15- 6-14	14- 0- 9			16- 3- 3	19- 7- 0	17- 4- 4	25- 5- 6	19- 0- 0	31- 0- 8
103			16- 2- 7	14- 1-13			16- 9-15	19- 7- 0	17-10- 9	25- 4- 8	19- 5- 5	30-11- 0

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M O L D   L O F T   O F F S E T S

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S I G H T   E D G E S

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
104			16- 9-14	14- 3- 1			17- 4-14	19- 7- 0	18- 4-11	25- 3-11	19-10-10	30- 9- 9
105			17- 5- 4	14- 4- 5			17-11-14	19- 7- 0	18-10-15	25- 2-13	20- 4- 4	30- 8- 0
106			18- 0-10	14- 5- 9			18- 6-14	19- 7- 0	19- 5- 5	25- 2- 0	20-10- 0	30- 6- 7
107			18- 7-15	14- 6-13			19- 1-14	19- 7- 0	19-11-11	25- 1- 2	21- 3- 8	30- 4-14
108			19- 3- 5	14- 8- 0			19- 8-11	19- 7- 0	20- 6- 3	25- 0- 4	21- 9- 2	30- 3- 5
109			19-10- 9	14- 9- 4			20- 3-10	19- 7- 0	21- 0-11	24-11- 6	22- 3- 0	30- 1-12
110			20- 5-15	14-10- 7			20-10- 7	19- 7- 0	21- 6-15	24-10- 8	22- 8-11	30- 0- 3
111			21- 1- 1	14-11- 7			21- 5-11	19- 7- 0	22- 1- 4	24- 9-11	23- 2- 8	29-10- 9
112			21- 8- 5	15- 0- 5			22- 0- 8	19- 7- 0	22- 7-11	24- 8-13	23- 8- 5	29- 8-15
113			22- 3- 1	15- 1- 0			22- 6-15	19- 7- 0	23- 2- 1	24- 7-15	24- 2- 2	29- 7- 6
114			22- 9-14	15- 1- 9			23- 1- 8	19- 7- 0	23- 8- 5	24- 7- 1	24- 7-14	29- 5-13
115			23- 4- 7	15- 2- 0			23- 7-12	19- 7- 0	24- 2- 7	24- 6- 4	25- 1-10	29- 4- 3
116			23-11- 2	15- 2- 5			24- 2- 0	19- 7- 0	24- 8- 8	24- 5- 7	25- 7- 7	29- 2-10
117			24- 5- 6	15- 2- 6			24- 8- 6	19- 7- 0	25- 2-10	24- 4-10	26- 1- 2	29- 1- 1
118			24-11-11	15- 2- 5			25- 2-12	19- 7- 0	25- 8-14	24- 3-12	26- 7- 4	28-11- 6
119			25- 5- 9	15- 2- 0			25- 8-12	19- 7- 0	26- 2-13	24- 2-15	27- 1- 0	28- 9-12

RED. 6X DATE 7-81
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S I G H T   E D G E S

FRM.	SIGHT EDGE 1D HEIGHT	SIGHT EDGE 1D HALF BREADTH	SIGHT EDGE E HEIGHT	SIGHT EDGE E HALF BREADTH	SIGHT EDGE 1E HEIGHT	SIGHT EDGE 1E HALF BREADTH	SIGHT EDGE F HEIGHT	SIGHT EDGE F HALF BREADTH	SIGHT EDGE G HEIGHT	SIGHT EDGE G HALF BREADTH	SIGHT EDGE H HEIGHT	SIGHT EDGE H HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
-2					17- 0-15	0-11- 2						
-1					16-11-10	1- 2- 2						
0			21- 3-12	0- 2- 7	16-11- 2	1- 3- 5			31- 3-15	0- 2-14	37- 3- 0	0- 6-13
1			21- 3- 1	0- 4- 1	16-10-10	1- 4- 7	26-10- 7	0- 4-14	31- 2-11	0- 6- 3	37- 1-10	0-11- 0
2			21- 2- 6	0- 5-13	16-10- 0	1- 5-13	26- 9- 6	0- 7- 6	31- 1- 7	0- 9- 7	37- 0- 4	1- 3- 4
3			21- 1- 9	0- 7-10	16- 9- 6	1- 7- 4	26- 8- 3	0-10- 2	31- 0- 3	1- 0-14	36-10-15	1- 7- 8
4			21- 0-12	0- 9-10	16- 8-12	1- 8-13	26- 7- 1	1- 0-13	30-10-15	1- 4- 4	36- 9- 9	1-11-13
5			20-11-15	0-11-10	16- 8- 0	1-10- 6	26- 5-14	1- 3- 8	30- 9-10	1- 7-12	36- 8- 3	2- 4- 1
6			20-11- 1	1- 1-13	16- 7- 5	2- 0- 1	26- 4-11	1- 6- 4	30- 8- 6	1-11- 3	36- 6-13	2- 8- 6
7			20-10- 2	1- 4- 1	16- 6- 9	2- 1-14	26- 3- 8	1- 9- 1	30- 7- 1	2- 2-11	36- 5- 8	3- 0-11
8			20- 9- 3	1- 6- 5	16- 5-12	2- 3-11	26- 2- 4	1-11-15	30- 5-13	2- 6- 2	36- 4- 3	3- 4-15
9			20- 8- 3	1- 8-12	16- 4-15	2- 5- 9	26- 1- 0	2- 2-14	30- 4- 9	2- 9- 9	36- 2-13	3- 9- 4
10			20- 7- 2	1-11- 4	16- 4- 1	2- 7- 8	25-11-12	2- 5-13	30- 3- 5	3- 1- 1	36- 1- 9	4- 1- 8
11			20- 6- 1	2- 1-13	16- 3- 3	2- 9- 9	25-10- 7	2- 8-14	30- 2- 0	3- 4-10	36- 0- 4	4- 5-12
12			20- 5- 0	2- 4- 7	16- 2- 4	2-11-11	25- 9- 2	2-11-15	30- 0-12	3- 8- 3	35-10-15	4-10- 1
13			20- 3-14	2- 7- 2	16- 1- 5	3- 1-15	25- 7-13	3- 3- 0	29-11- 7	3-11-12	35- 9-10	5- 2- 6

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S I G H T   E D G E S

FRM.	SIGHT EDGE FK HEIGHT	SIGHT EDGE FK HALF BREADTH	SIGHT EDGE A HEIGHT	SIGHT EDGE A HALF BREADTH	SIGHT EDGE 1A HEIGHT	SIGHT EDGE 1A HALF BREADTH	SIGHT EDGE B HEIGHT	SIGHT EDGE B HALF BREADTH	SIGHT EDGE C HEIGHT	SIGHT EDGE C HALF BREADTH	SIGHT EDGE D HEIGHT	SIGHT EDGE D HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
120			25-11- 7	15- 1- 8			26- 2-12	19- 7- 0	26- 8-11	24- 2- 3	27- 6-11	28- 8- 3
121			26- 5- 6	15- 0-12			26- 8-11	19- 7- 0	27- 2- 8	24- 1- 6	28- 0- 7	28- 6-10
122			26-10-10	14-11-14			27- 2- 1	19- 7- 0	27- 7-12	24- 0-11	28- 5- 9	28- 5- 3
123			27- 3-11	14-10-13			27- 7- 5	19- 7- 0	28- 0-15	23-11-15	28-10-11	28- 3-13
124			27- 8-10	14- 9-10			28- 0- 7	19- 7- 0	28- 6- 1	23-11- 4	29- 3- 9	28- 2- 7
125			28- 1- 9	14- 8- 3			28- 5- 8	19- 7- 0	28-11- 1	23-10- 9	29- 8- 7	28- 1- 2
126			28- 6- 6	14- 6-10			28-10- 8	19- 7- 0	29- 4- 0	23- 9-15	30- 1- 5	27-11-12
127			28-11- 3	14- 4-14			29- 3- 6	19- 7- 0	29- 9- 0	23- 9- 4	30- 6- 4	27-10- 7
128			29- 3-14	14- 2-14			29- 8- 4	19- 7- 0	30- 1-15	23- 8- 9	30-11- 2	27- 9- 1
129			29- 8- 8	14- 0-11			30- 1- 2	19- 7- 0	30- 6-13	23- 7-15	31- 3-14	27- 7-12
130			30- 1- 2	13-10- 5			30- 6- 0	19- 7- 0	30-11-11	23- 7- 4	31- 8- 9	27- 6- 8
131			30- 5- 9	13- 7-13			30-10-11	19- 7- 0	31- 4- 6	23- 6-10	32- 1- 2	27- 5- 3
132			30-10- 0	13- 5- 1			31- 3- 6	19- 7- 0	31- 8-15	23- 6- 0	32- 5-12	27- 3-15

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WATERMAN LASH

S I G H T   E D G E S

FRM.	SIGHT EDGE 1D HEIGHT	SIGHT EDGE 1D HALF BREADTH	SIGHT EDGE E HEIGHT	SIGHT EDGE E HALF BREADTH	SIGHT EDGE 1E HEIGHT	SIGHT EDGE 1E HALF BREADTH	SIGHT EDGE F HEIGHT	SIGHT EDGE F HALF BREADTH	SIGHT EDGE G HEIGHT	SIGHT EDGE G HALF BREADTH	SIGHT EDGE H HEIGHT	SIGHT EDGE H HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
14			20- 2-12	2- 9-13	16- 0- 5	3- 4- 4	25- 6- 8	3- 6- 1	29-10- 2	4- 3- 6	35- 8- 6	5- 6-11
15			20- 1-10	3- 0-10	15-11- 4	3- 6- 9	25- 5- 2	3- 9- 3	29- 8-13	4- 7- 0	35- 7- 1	5-11- 0
16			20- 0- 7	3- 3- 8	15-10- 3	3- 9- 0	25- 3-13	4- 0- 5	29- 7- 8	4-10-10	35- 5-13	6- 3- 5
17			19-11- 3	3- 6- 7	15- 9- 2	3-11- 7	25- 2- 7	4- 3- 8	29- 6- 3	5- 2- 5	35- 4- 8	6- 7-10
18			19-10- 0	3- 9- 7	15- 8- 1	4- 2- 0	25- 1- 1	4- 6-12	29- 4-14	5- 5-15	35- 3- 4	6-11-14
19			19- 8-11	4- 0- 8	15- 6-15	4- 4- 9	24-11-11	4-10- 0	29- 3- 9	5- 9-10	35- 2- 0	7- 4- 3
20			19- 7- 6	4- 3-10	15- 5-12	4- 7- 3	24-10- 4	5- 1- 6	29- 2- 4	6- 1- 6	35- 0-12	7- 8- 8
21			19- 6- 1	4- 6-12	15- 4-10	4- 9-15	24- 8-13	5- 4-12	29- 0-15	6- 5- 2	34-11- 7	8- 0-14
22			19- 4- 8	4-10- 9			24- 7- 2	5- 8-13	28-11- 7	6- 9- 9	34-10- 0	8- 5-15
23			19- 2-15	5- 2- 6			24- 5- 6	6- 0-14	28- 9-14	7- 2- 0	34- 8- 8	8-11- 1
24			19- 1- 5	5- 6- 5			24- 3-11	6- 5- 0	28- 8- 5	7- 6- 8	34- 7- 1	9- 4- 3
25			18-11-11	5-10- 4			24- 1-15	6- 9- 2	28- 6-12	7-11- 0	34- 5- 9	9- 9- 5
26			18-10- 1	6- 2- 4			24- 0- 2	7- 1- 5	28- 5- 2	8- 3- 8	34- 4- 2	10- 2- 7
27			18- 8- 6	6- 6- 6			23-10- 6	7- 5- 9	28- 3- 9	8- 8- 1	34- 2-11	10- 7- 9
28			18- 6-10	6-10- 8			23- 8- 9	7- 9-14	28- 1-15	9- 0-11	34- 1- 4	11- 0-11
29			18- 4-15	7- 2-10			23- 6-12	8- 2- 3	28- 0- 6	9- 5- 5	33-11-12	11- 5-14

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S I G H T   E D G E S

FRM.	SIGHT EDGE 1D HEIGHT	SIGHT EDGE 1D HALF BREADTH	SIGHT EDGE E HEIGHT	SIGHT EDGE E HALF BREADTH	SIGHT EDGE 1E HEIGHT	SIGHT EDGE 1E HALF BREADTH	SIGHT EDGE F HEIGHT	SIGHT EDGE F HALF BREADTH	SIGHT EDGE G HEIGHT	SIGHT EDGE G HALF BREADTH	SIGHT EDGE H HEIGHT	SIGHT EDGE H HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
30			18- 3- 4	7- 6-13			23- 4-14	8- 6-10	27-10-12	9- 9-15	33-10- 5	11-11- 1
31			18- 1- 8	7-11- 1			23- 3- 0	8-11- 1	27- 9- 2	10- 2-10	33- 8-14	12- 4- 3
32			17-11-13	8- 3- 5			23- 1- 2	9- 3- 9	27- 7- 8	10- 7- 6	33- 7- 7	12- 9- 6
33			17-10- 1	8- 7- 9			22-11- 3	9- 8- 2	27- 5-14	11- 0- 3	33- 6- 0	13- 2-10
34			17- 8- 5	8-11-14			22- 9- 5	10- 0-12	27- 4- 3	11- 5- 0	33- 4-10	13- 7-13
35			17- 6-10	9- 4- 3			22- 7- 6	10- 5- 6	27- 2- 9	11- 9-13	33- 3- 3	14- 1- 1
36			17- 4-14	9- 8- 8			22- 5- 7	10-10- 0	27- 0-14	12- 2-12	33- 1-12	14- 6- 5
37			17- 3- 2	10- 0-13			22- 3- 8	11- 2-11	26-11- 3	12- 7-11	33- 0- 5	14-11- 9
38			17- 1- 6	10- 5- 2			22- 1- 9	11- 7- 7	26- 9- 8	13- 0-11	32-10-15	15- 4-14
39			16-11-10	10- 9- 7			21-11-10	12- 0- 3	26- 7-13	13- 5-11	32- 9- 8	15-10- 3
40			16- 9-14	11- 1-12			21- 9-11	12- 4-15	26- 6- 2	13-10-11	32- 8- 1	16- 3- 8
41			16- 8- 2	11- 6- 1			21- 7-12	12- 9-11	26- 4- 7	14- 3-13	32- 6-11	16- 8-13
42			16- 6- 6	11-10- 6			21- 5-13	13- 2- 8	26- 2-11	14- 8-15	32- 5- 4	17- 2- 3
43			16- 4-10	12- 2-12			21- 3-14	13- 7- 5	26- 0-15	15- 2- 2	32- 3-14	17- 7- 8
44			16- 2-14	12- 7- 1			21- 1-15	14- 0- 2	25-11- 4	15- 7- 4	32- 2- 7	18- 0-14
45			15- 9- 5	13- 9- 0			20- 7-13	15- 3- 6	25- 5-14	16-11-11	31-10- 2	19- 5-14

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S I G H T E D G E S

FRM.	SIGHT EDGE 1D		SIGHT EDGE E		SIGHT EDGE 1E		SIGHT EDGE F		SIGHT EDGE G		SIGHT EDGE H	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
46			15- 3- 9	14-11- 4			20- 1-11	16- 6-15	25- 0- 8	18- 4- 4	31- 5-13	20-10-15
47			14- 9-12	16- 1-12			19- 7- 8	17-10-12	24- 7- 3	19- 8-15	31- 1- 9	22- 4- 1
48			14- 3-13	17- 4- 7			19- 1- 5	19- 2-12	24- 1-14	21- 1-12	30- 9- 5	23- 9- 4
49			13- 9-15	18- 7- 3			18- 7- 2	20- 6-15	23- 8-11	22- 6-12	30- 5- 3	25- 2- 6
50			13- 4- 2	19- 9-14			18- 0-15	21-11- 4	23- 3- 8	23-11-12	30- 1- 0	26- 7- 7
51			12-10- 6	21- 0- 8			17- 6-13	23- 3- 9	22-10- 7	25- 4-14	29- 8-15	28- 0- 7
52			12- 4-11	22- 2-15			17- 0-14	24- 7-12	22- 5- 8	26- 9-15	29- 4-14	29- 5- 6
53			11- 7- 6	24- 2-13			16- 3- 4	26-10- 7	21- 9- 7	29- 2- 5	28-10- 7	31- 9- 4
54			10-10- 4	26- 2- 6			15- 6- 1	29- 0-10	21- 1-14	31- 6- 1	28- 4- 5	34- 0- 5
55	7- 4- 3	25- 6-15	10- 1- 4	28- 1-15			14- 9- 3	31- 2- 9	20- 6-12	33- 9- 4	27-10-11	36- 2- 9
56	6- 7- 1	27- 3- 3	9- 4- 8	30- 1- 4			14- 0-15	33- 4- 1	20- 0- 3	35-11-11	27- 5-11	38- 3- 8
57	5-10- 0	28-10- 0	8- 8- 2	31-11-14			13- 5- 4	35- 4-13	19- 6- 5	38- 0-12	27- 1- 5	40- 2-12
58	5- 1- 2	30- 3- 8	8- 0- 5	33- 9-12			12-10- 4	37- 4-12	19- 1- 4	40- 0- 8	26- 9-11	42- 0- 5
59	4- 4-12	31- 6-13	7- 5- 1	35- 6-10			12- 4- 1	39- 3- 5	18- 9- 0	41-10- 9	26- 6-11	43- 7-12
60	3- 9- 6	32- 7- 8	6-10-11	37- 1-15			11-10-13	40-11-14	18- 5-12	43- 6- 6	26- 4- 6	45- 0-15
61	3- 3- 1	33- 5-13	6- 5- 3	38- 7- 6			11- 6- 6	42- 6- 1	18- 3- 6	44-11-13	26- 2- 9	46- 4- 0

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S I G H T E D G E S

FRM.	SIGHT EDGE 1D		SIGHT EDGE E		SIGHT EDGE 1E		SIGHT EDGE F		SIGHT EDGE G		SIGHT EDGE H	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
62			6- 0-10	39-10- 5			11- 2-14	43- 9-10	18- 1-12	46- 2- 8	26- 1- 4	47- 4-14
63			5- 9- 0	40-10- 4			11- 0- 3	44-10- 7	18- 0-11	47- 2- 7	26- 0- 6	48- 3- 5
64			5- 6- 5	41- 7- 4			10-10- 1	45- 8-11	18- 0- 0	47-11-15	25-11-12	48-11- 8
65			5- 4- 9	42- 1- 6			10- 8-10	46- 4- 5	17-11- 9	48- 7- 1	25-11- 6	49- 5- 7
66			5- 3- 4	42- 5-12			10- 7- 9	46- 9-13	17-11- 5	49- 0- 5	25-11- 2	49- 9- 4
67			5- 2- 4	42- 9- 3			10- 6-13	47- 1-11	17-11- 3	49- 4- 1	25-11- 1	49-11- 5
68			5- 1- 9	42-11-11			10- 6- 6	47- 4- 1	17-11- 1	49- 6- 7	25-11- 0	50- 0- 0
69			5- 1- 2	43- 1- 2			10- 6- 3	47- 5- 4	17-11- 1	49- 7- 8	25-11- 0	50- 0- 0
70			5- 1- 0	43- 1-10			10- 6- 2	47- 5- 8	17-11- 1	49- 7-13	25-11- 0	50- 0- 0
71			5- 1- 0	43- 1-10			10- 6- 2	47- 5- 8	17-11- 1	49- 7-13	25-11- 0	50- 0- 0
72			5- 1- 0	43- 1-10			10- 6- 2	47- 5- 8	17-11- 1	49- 7-13	25-11- 0	50- 0- 0
73			5- 1- 0	43- 1-10			10- 6- 2	47- 5- 8	17-11- 1	49- 7-13	25-11- 0	50- 0- 0
74			5- 1- 0	43- 1-10			10- 6- 2	47- 5- 8	17-11- 1	49- 7-13	25-11- 0	50- 0- 0
75			5- 1- 0	43- 1-10			10- 6- 2	47- 5- 8	17-11- 1	49- 7-13	25-11- 0	50- 0- 0
76			5- 1- 0	43- 1-10			10- 6- 2	47- 5- 8	17-11- 1	49- 7-13	25-11- 0	50- 0- 0
77			5- 1- 7	43- 1- 8			10- 6- 7	47- 5- 6	17-11- 3	49- 7-11	25-11- 0	50- 0- 0

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FRM.	SIGHT EDGE 1D		SIGHT EDGE E		SIGHT EDGE 1E		SIGHT EDGE F		SIGHT EDGE G		SIGHT EDGE H	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
78			5- 2-12	43- 0-15			10- 7- 6	47- 4-13	17-11- 9	49- 7- 7	25-11- 0	50- 0- 0
79			5- 5- 0	43- 0- 0			10- 9- 1	47- 3-14	18- 0- 7	49- 6-13	25-11- 0	50- 0- 0
80			5- 8- 3	42-10-10			10-11-10	47- 2- 7	18- 1-10	49- 5-15	25-11- 0	50- 0- 0
81			6- 0- 9	42- 8-13			11- 3- 1	47- 0- 9	18- 3- 6	49- 4-12	25-11- 0	50- 0- 0
82			6- 6- 2	42- 6- 7			11- 7- 8	46-10- 2	18- 5-10	49- 3- 3	25-11- 2	49-11-14
83			7- 1- 1	42- 3- 8			12- 0-15	46- 7- 1	18- 8- 8	49- 1- 3	25-11- 8	49-11- 9
84			7- 9- 5	42- 0- 0			12- 7-11	46- 3- 5	19- 0- 4	48-10- 9	26- 0- 4	49-10-15
85			8- 7- 1	41- 7-14			13- 4- 2	45-10-10	19- 5- 5	48- 6-15	26- 1-11	49- 9-11
86			9- 1- 9	41- 5- 2			13- 9-15	45- 7- 6	19- 9- 1	48- 4- 6	26- 3- 0	49- 8- 8
87			9- 8- 7	41- 2- 3			14- 4- 3	45- 3-15	20- 1- 4	48- 1- 6	26- 4-13	49- 6-15
88			10- 3- 9	40-11- 3			14-10-11	45- 0- 5	20- 5-15	47-10- 2	26- 7- 1	49- 4-15
89			10-10-15	40- 8- 1			15- 5- 6	44- 8-10	20-10-14	47- 6-10	26- 9-12	49- 2- 9
90			11- 6- 7	40- 4-14			16- 0- 2	44- 4-13	21- 4- 1	47- 3- 0	27- 0-13	48-11-15
91			12- 2- 2	40- 1-10			16- 6-14	44- 1- 2	21- 9- 3	46-11- 6	27- 4- 0	48- 9- 2
92			12- 9-14	39-10- 5			17- 1- 8	43- 9- 6	22- 2- 5	46- 7-13	27- 7- 6	48- 6- 4
93			13- 5-10	39- 7- 1			17- 8- 1	43- 5-12	22- 7- 4	46- 4- 6	27-10-10	48- 3- 6

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S I G H T E D G E S

FRM.	SIGHT EDGE 1D		SIGHT EDGE E		SIGHT EDGE 1E		SIGHT EDGE F		SIGHT EDGE G		SIGHT EDGE H	
	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
94			14- 1- 8	39- 3-11			18- 2- 8	43- 2- 3	22-11-15	46- 1- 1	28- 1-12	48- 0-10
95			14- 9- 5	39- 0- 6			18- 8-12	42-10-11	23- 4- 7	45- 9-14	28- 4-12	47-10- 0
96			15-10- 3	38- 6-15			19- 7- 2	42- 4-15	23-11-11	45- 4-13	28- 9-10	47- 5-12
97			16-10-15	38- 1- 9			20- 5- 5	41-11- 4	24- 6-14	44-11-12	29- 2- 8	47- 1- 8
98			17-11-12	37- 8- 2			21- 3-14	41- 5- 7	25- 2-12	44- 6- 4	29- 7-15	46- 8-12
99			19- 0-10	37- 2-11			22- 2-10	40-11- 7	25-11- 4	44- 0- 5	30- 2- 0	46- 3- 7
100			20- 1- 6	36- 9- 4			23- 1- 6	40- 5- 7	26- 8- 0	43- 6- 2	30- 8-10	45- 9-11
101			21- 2- 4	36- 3-13			24- 0- 4	39-11- 7	27- 5- 3	42-11-11	31- 3-13	45- 3- 6
102			21- 6- 6	36- 2- 1			24- 3- 9	39- 9- 9	27- 8- 0	42- 9-11	31- 6- 1	45- 1- 7
103			21-10-10	36- 0- 8			24- 7- 0	39- 7-11	27-10-15	42- 7-10	31- 8- 4	44-11- 8
104			22- 3- 1	35-10- 6			24-10-10	39- 5-11	28- 1-15	42- 5- 9	31-10- 8	44- 9- 8
105			22- 7-11	35- 8- 7			25- 2- 5	39- 3-10	28- 4-12	42- 3-10	32- 0-13	44- 7- 8
106			23- 0- 5	35- 6- 7			25- 6- 1	39- 1- 8	28- 7- 9	42- 1-10	32- 3- 4	44- 5- 6
107			23- 4-15	35- 4- 8			25-10- 0	38-11- 5	28-10-11	41-11- 7	32- 5- 9	44- 3- 5
108			23- 9-10	35- 2- 8			26- 1-15	38- 9- 2	29- 1-14	41- 9- 3	32- 8- 0	44- 1- 3
109			24- 2- 7	35- 0- 8			26- 5-13	38- 7- 0	29- 5- 0	41- 6-15	32-10- 9	43-10-15

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WATERMAN LASH

S I G H T E D G E S

FRM.	SIGHT EDGE 1D HEIGHT	SIGHT EDGE 1D HALF BREADTH	SIGHT EDGE E HEIGHT	SIGHT EDGE E HALF BREADTH	SIGHT EDGE 1E HEIGHT	SIGHT EDGE 1E HALF BREADTH	SIGHT EDGE F HEIGHT	SIGHT EDGE F HALF BREADTH	SIGHT EDGE G HEIGHT	SIGHT EDGE G HALF BREADTH	SIGHT EDGE H HEIGHT	SIGHT EDGE H HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
126			31- 4- 4	32- 0- 2			32- 9- 7	35- 0-15	34- 8- 3	37-10-11	37- 0-12	40- 3- 2
127			31- 8-14	31-10- 3			33- 1-12	34-10- 9	35- 0- 2	37- 7-14	37- 4- 0	40- 0- 4
128			32- 1-10	31- 8- 2			33- 6- 3	34- 8- 2	35- 4- 1	37- 5- 2	37- 7- 4	39- 9- 6
129			32- 6- 2	31- 6- 4			33-10- 8	34- 5-11	35- 8- 1	37- 2- 5	37-10- 9	39- 6- 9
130			32-10-10	31- 4- 5			34- 2-14	34- 3- 4	36- 0- 1	36-11- 8	38- 1-12	39- 3-11
131			33- 3- 1	31- 2- 7			34- 7- 0	34- 1- 0	36- 3-12	36- 8-14	38- 5- 1	39- 0-14
132			33- 7- 9	31- 0- 9			34-11- 3	33-10-10	36- 7- 8	36- 6- 5	38- 8- 2	38-10- 3

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FRM.	SIGHT EDGE 1D HEIGHT	SIGHT EDGE 1D HALF BREADTH	SIGHT EDGE E HEIGHT	SIGHT EDGE E HALF BREADTH	SIGHT EDGE 1E HEIGHT	SIGHT EDGE 1E HALF BREADTH	SIGHT EDGE F HEIGHT	SIGHT EDGE F HALF BREADTH	SIGHT EDGE G HEIGHT	SIGHT EDGE G HALF BREADTH	SIGHT EDGE H HEIGHT	SIGHT EDGE H HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
110			24- 7- 3	34-10- 7			26- 9-12	38- 4-13	29- 8- 2	41- 4-12	33- 1- 1	43- 8-13
111			25- 0- 2	34- 8- 6			27- 1-12	38- 2- 9	29-11- 7	41- 2- 8	33- 3-11	43- 6- 8
112			25- 5- 1	34- 6- 4			27- 5-15	38- 0- 4	30- 2-13	41- 0- 2	33- 6- 5	43- 4- 3
113			25-10- 1	34- 4- 3			27-10- 2	37- 9-15	30- 6- 4	40- 9-11	33- 9- 0	43- 1-14
114			26- 3- 3	34- 2- 0			28- 2- 6	37- 7- 9	30- 9- 8	40- 7- 6	33-11- 9	42-11-10
115			26- 8- 4	33-11-13			28- 6-13	37- 5- 1	31- 1- 3	40- 4-13	34- 2- 6	42- 9- 2
116			27- 1- 7	33- 9-10			28-11- 7	37- 2- 8	31- 5- 1	40- 2- 2	34- 5- 6	42- 6- 9
117			27- 6-12	33- 7- 6			29- 4- 0	37- 0- 0	31- 8-10	39-11-10	34- 8- 1	42- 4- 2
118			28- 0- 3	33- 5- 1			29- 8- 9	36- 9- 7	32- 0- 6	39- 8-15	34-11- 2	42- 1- 8
119			28- 5- 7	33- 2-14			30- 1- 6	36- 6-13	32- 4- 9	39- 6- 0	35- 2- 9	41-10- 8
120			28-10-12	33- 0-10			30- 6- 3	36- 4- 2	32- 8-10	39- 3- 3	35- 5-12	41- 7-11
121			29- 4- 3	32-10- 5			30-11- 2	36- 1- 6	33- 0-11	39- 0- 5	35- 8-15	41- 4-14
122			29- 9- 3	32- 8- 3			31- 3-10	35-10-14	33- 4- 8	38- 9-10	36- 0- 0	41- 2- 4
123			30- 2- 0	32- 6- 2			31- 8- 2	35- 8- 6	33- 8- 7	38- 6-14	36- 3- 2	40-11- 8
124			30- 6-10	32- 4- 3			32- 0- 7	35- 5-15	34- 0- 5	38- 4- 3	36- 6- 5	40- 6-12
125			30-11- 5	32- 2- 3			32- 4-13	35- 3- 8	34- 4- 3	38- 1- 7	36- 9- 8	40- 5-15

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FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
-10									69- 2-11	2- 4- 9		
-9									69- 1- 8	3- 2- 4		
-8									69- 0- 7	3-10- 9		
-7									68-11- 6	4- 7- 1		
-6					58- 4- 6	0-10- 9			68-10- 4	5- 3- 7		
-5					58- 2- 5	1- 7- 0			68- 9- 3	5-11- 9		
-4					58- 0- 9	2- 2- 4			68- 8- 1	6- 7-10		
-3			50-11- 7	0-11- 4	57-10-13	2- 9- 7			68- 6-15	7- 3-10		
-2			50- 9-10	1- 5-14	57- 9- 1	3- 4-11			68- 5-12	7-11-11		
-1	43- 6-10	0- 9-12	50- 7-15	2- 0- 4	57- 7- 5	3-11-15			68- 4- 9	8- 7-10		
0	43- 5- 2	1- 2-13	50- 6- 4	2- 6- 7	57- 5-10	4- 7- 1			68- 3- 6	9- 3-11		
1	43- 3- 9	1- 7-15	50- 4-10	3- 0-10	57- 3-14	5- 2- 3			68- 2- 3	9-11-10		
2	43- 2- 0	2- 1- 2	50- 3- 1	3- 6-12	57- 2- 2	5- 9- 3			68- 1- 0	10- 7- 8		
3	43- 0- 7	2- 6- 5	50- 1- 8	4- 0-14	57- 0- 8	6- 4- 1			67-11-12	11- 3- 5		
4	42-10-14	2-11- 8	49-11-15	4- 6-15	56-10-13	6-11- 0			67-10- 8	11-11- 3		
5	42- 9- 6	3- 4- 9	49-10- 7	5- 0-15	56- 9- 3	7- 5-13			67- 9- 5	12- 6-15		

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WATERMAN LASH

S I G H T. E D G E S

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
6	42- 7-14	3- 9-11	49- 8-15	5- 6-14	56- 7- 9	8- 0- 9			67- 8- 2	13- 2-11		
7	42- 6- 6	4- 2-12	49- 7- 7	6- 0-14	56- 5-15	8- 7- 5			67- 6-15	13-10- 5		
8	42- 4-15	4- 7-13	49- 6- 0	6- 6-12	56- 4- 6	9- 2- 0			67- 5-13	14- 5-14		
9	42- 3- 8	5- 0-14	49- 4- 9	7- 0-11	56- 2-13	9- 8-10			67- 4-11	15- 1- 5		
10	42- 2- 1	5- 5-15	49- 3- 2	7- 6- 9	56- 1- 5	10- 3- 3			67- 3- 9	15- 8-12		
11	42- 0-11	5-11- 0	49- 1-12	8- 0- 7	55-11-12	10- 9-12			67- 2- 6	16- 4- 2		
12	41-11- 5	6- 4- 0	49- 0- 5	8- 6- 4	55-10- 4	11- 4- 4			67- 1- 4	16-11- 7		
13	41- 9-15	6- 9- 0	48-10-15	9- 0- 1	55- 8-12	11-10-12			67- 0- 2	17- 6-11		
14	41- 8- 9	7- 1-15	48- 9-10	9- 5-13	55- 7- 4	12- 5- 3			66-11- 1	18- 2- 1		
15	41- 7- 4	7- 6-14	48- 8- 5	9-11- 9	55- 5-13	12-11-10			66-10- 1	18- 8-14		
16	41- 5-14	7-11-13	48- 7- 0	10- 5- 4	55- 4- 6	13- 5-15			66- 9- 1	19- 3-11		
17	41- 4- 9	8- 4-12	48- 5-11	10-10-15	55- 2-15	14- 0- 4			66- 8- 0	19-10- 7		
18	41- 3- 4	8- 9-11	48- 4- 6	11- 4-10	55- 1- 9	14- 6- 7			66- 7- 0	20- 5- 3		
19	41- 2- 0	9- 2-10	48- 3- 2	11-10- 4	55- 0- 2	15- 0-10			66- 6- 0	20-11-13		
20	41- 0-11	9- 7- 9	48- 1-14	12- 3-14	54-10-12	15- 6-12			66- 5- 1	21- 6- 7		
21	40-11- 7	10- 0- 8	48- 0-10	12- 9- 8	54- 9- 5	16- 0-14			66- 4- 1	22- 1- 0	58- 4- 0	18- 1- 8

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SIGHT EDGES

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
22	40-10- 0	10- 6- 3	47-11- 3	13- 4- 0	54- 7-11	16- 7-15			66- 2-15	22- 8-10	58- 2-11	18- 9- 0
23	40- 8- 9	10-11-14	47- 9-12	13-10- 8	54- 6- 1	17- 2-15			66- 1-13	23- 4- 3	58- 1- 6	19- 4- 8
24	40- 7- 2	11- 5-10	47- 8- 5	14- 4-15	54- 4- 8	17- 9-14			66- 0-11	23-11-10	58- 0- 2	19-11-15
25	40- 5-11	11-11- 5	47- 6-14	14-11- 5	54- 2-15	18- 4-12			65-11-11	24- 7- 1	57-10-14	20- 7- 4
26	40- 4- 5	12- 5- 0	47- 5- 8	15- 5-11	54- 1- 6	18-11-10			65-10-10	25- 2- 6	57- 9-10	21- 2- 9
27	40- 2-15	12-10-11	47- 4- 2	16- 0- 0	53-11-13	19- 6- 6			65- 9- 9	25- 9-10	57- 8- 7	21- 9-12
28	40- 1- 9	13- 4- 6	47- 2-12	16- 6- 5	53-10- 4	20- 1- 1			65- 8- 9	26- 4-13	57- 7- 4	22- 4-14
29	40- 0- 3	13-10- 1	47- 1- 7	17- 0- 9	53- 8-12	20- 7-12			65- 7-10	26-11-15	57- 6- 2	23- 0- 0
30	39-10-14	14- 3-11	47- 0- 1	17- 6-13	53- 7- 5	21- 2- 5			65- 6-11	27- 7- 0	57- 4-15	23- 7- 0
31	39- 9- 9	14- 9- 6	46-10-12	18- 1- 0	53- 5-14	21- 8-14			65- 5-12	28- 2- 0	57- 3-14	24- 1-15
32	39- 8- 4	15- 3- 1	46- 9- 7	18- 7- 3	53- 4- 7	22- 3- 6			65- 4-13	28- 8-14	57- 2-12	24- 8-13
33	39- 6-15	15- 8-11	46- 8- 3	19- 1- 5	53- 3- 1	22- 9-12			65- 3-15	29- 3-11	57- 1-12	25- 3-10
34	39- 5-10	16- 2- 6	46- 6-14	19- 7- 6	53- 1-11	23- 4- 2			65- 3- 2	29-10- 7	57- 0-12	25-10- 7
35	39- 4- 6	16- 8- 0	46- 5-10	20- 1- 7	53- 0- 5	23-10- 7			65- 2- 5	30- 5- 2	56-11-12	26- 5- 2
36	39- 3- 2	17- 1-10	46- 4- 6	20- 7- 8	52-11- 0	24- 4-11			65- 1- 9	30-11-12	56-10-13	26-11-12
37	39- 1-13	17- 7- 4	46- 3- 3	21- 1- 8	52- 9-11	24-10-15			65- 0-13	31- 6- 4	56- 9-14	27- 6- 6

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SIGHT EDGES

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
38	39- 0- 9	18- 0-14	46- 1-15	21- 7- 7	52- 8- 7	25- 5- 1			65- 0- 1	32- 0-11	56- 9- 0	28- 0-14
39	38-11- 5	18- 6- 8	46- 0-12	22- 1- 5	52- 7- 2	25-11- 3			64-11- 6	32- 7- 1	56- 8- 3	28- 7- 6
40	38-10- 1	19- 0- 1	45-11- 8	22- 7- 4	52- 5-15	26- 5- 3			64-10-11	33- 1- 5	56- 7- 5	29- 1-12
41	38- 8-14	19- 5-11	45-10- 6	23- 1- 1	52- 4-11	26-11- 3			64-10- 1	33- 7- 8	56- 6- 9	29- 8- 2
42	38- 7-10	19-11- 4	45- 9- 3	23- 6-14	52- 3- 7	27- 5- 1			64- 9- 7	34- 1-10	56- 5-13	30- 2- 6
43	38- 6- 7	20- 4-13	45- 8- 1	24- 0-10	52- 2- 4	27-10-15			64- 8-14	34- 7-10	56- 5- 1	30- 8- 9
44	38- 5- 4	20-10- 6	45- 6-15	24- 6- 6	52- 1- 2	28- 4-11			64- 8- 4	35- 1- 9	56- 4- 6	31- 2-12
45	38- 1- 8	22- 3-12	45- 3- 9	26- 0- 2	51- 9- 8	29-10- 7			64- 6-10	36- 7-10	56- 2- 5	32- 9- 8
46	37- 9-14	23- 9- 0	45- 0- 5	27- 5- 7	51- 6- 2	31- 3- 8			64- 5- 2	38- 0-14	56- 0- 7	34- 3- 7
47	37- 6- 5	25- 2- 2	44- 9- 3	28-10- 6	51- 2-15	32- 7-15			64- 3-14	39- 5- 1	55-10-13	35- 8- 8
48	37- 2-14	26- 7- 3	44- 6- 5	30- 2-15	51- 0- 1	33-11-11			64- 2-13	40- 8- 3	55- 9- 6	37- 0-11
49	36-11- 9	28- 0- 1	44- 3- 9	31- 7- 1	50- 9- 8	35- 2-14			64- 2- 0	41-10- 4	55- 8- 1	38- 3-15
50	36- 8- 6	29- 4-12	44- 1- 0	32-10-12	50- 7- 3	36- 5- 7			64- 1- 7	42-11- 1	55- 6-15	39- 6- 3
51	36- 5- 5	30- 9- 3	43-10- 9	34- 2- 0	50- 5- 2	37- 7- 6			64- 1- 1	43-10-11	55- 5-14	40- 7- 8
52	36- 2- 6	32- 1- 6	43- 8- 5	35- 4-13	50- 3- 6	38- 8-11			64- 0-13	44- 9- 1	55- 5- 0	41- 7-12
53	35- 9-14	34- 3-12	43- 4-15	37- 4- 7	50- 0-14	40- 5- 8					55- 3-12	43- 2- 2

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SIGHT EDGES

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
54	35- 5-13	36- 4-15	43- 2- 2	39- 2- 9	49-10-15	42- 0- 4					55- 2-12	44- 5-11
55	35- 2- 2	38- 5- 0	42-11-11	40-11- 4	49- 9- 6	43- 5- 4					55- 2- 0	45- 7- 2
56	34-10-15	40- 3- 9	42- 9-10	42- 6- 4	49- 8- 3	44- 8- 7						
57	34- 8- 6	42- 0- 3	42- 8- 0	43-11- 3	49- 7- 5	45- 9-11						
58	34- 6- 4	43- 6-14	42- 6-10	45- 2- 3	49- 6-10	46- 9- 3	58- 6-11	48-10-10				
59	34- 4-10	44-11- 8	42- 5- 9	46- 3- 5	49- 6- 2	47- 7- 0	58- 6- 7	49- 3-12				
60	34- 3- 7	46- 1-14	42- 4-12	47- 2- 9	49- 5-12	48- 3- 3	58- 6- 4	49- 7-13				
61	34- 2-10	47- 2- 9	42- 4- 2	48- 0- 9	49- 5- 7	48-10- 2	58- 6- 2	49-10- 1				
62	34- 2- 1	48- 1- 4	42- 3-11	48- 9- 2	49- 5- 4	49- 3-12	58- 6- 1	49-10-15				
63	34- 1-11	48- 9-15	42- 3- 5	49- 3-13	49- 5- 2	49- 8- 3	58- 6- 0	49-11-11				
64	34- 1- 6	49- 4-11	42- 3- 2	49- 8-11	49- 5- 1	49-11- 0	58- 6- 0	50- 0- 1				
65	34- 1- 2	49- 9- 6	42- 3- 0	49-11- 8	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
66	34- 1- 0	49-11-11	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
67	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
68	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
69	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				

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WATERMAN

SIGHT EDGES

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
70	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
71	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
72	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
73	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
74	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
75	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
76	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
77	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
78	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
79	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
80	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
81	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
82	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
83	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
84	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
85	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				

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MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
102	36- 8- 0	47- 0-11	43- 2- 5	48- 5- 6	49- 8-10	49- 2- 5	58- 6- 2	49- 7-11				
103	36- 9- 8	46-10-15	43- 3- 5	48- 3-12	49- 9- 2	49- 1- 0	58- 6- 2	49- 6-13				
104	36-11- 2	46- 9- 2	43- 4- 5	48- 2- 2	49- 9-10	48-11-11	58- 6- 2	49- 5-15				
105	37- 0-13	46- 7- 3	43- 5- 5	48- 0- 7	49-10- 2	48-10- 4	58- 6- 3	49- 5- 0				
106	37- 2- 9	46- 5- 3	43- 6- 6	47-10-11	49-10-11	48- 8-13						
107	37- 4- 3	46- 3- 5	43- 7- 7	47- 8-15	49-11- 4	48- 7- 2						
108	37- 5-13	46- 1- 7	43- 8- 9	47- 7- 2	49-11-15	48- 5- 7						
109	37- 7- 7	45-11-10	43- 9-12	47- 5- 3	50- 0- 9	48- 3-10						
110	37- 9- 4	45- 9- 9	43-10-15	47- 3- 4	50- 1- 4	48- 1-14						
111	37-11- 1	45- 7- 7	44- 0- 2	47- 1- 5	50- 1-14	48- 0- 2						
112	38- 1- 0	45- 5- 5	44- 1- 5	46-11- 5	50- 2-10	47-10- 3						
113	38- 2-15	45- 3- 1	44- 2- 9	46- 9- 4	50- 3- 6	47- 8- 2						
114	38- 5- 1	45- 0-10	44- 3-14	46- 7- 2	50- 4- 3	47- 6- 0						
115	38- 7- 2	44-10- 5	44- 5- 3	46- 5- 0	50- 4-15	47- 3-14						
116	38- 9- 5	44- 7-12	44- 6- 8	46- 2-13	50- 5-13	47- 1-10						
117	38-11-10	44- 5- 3	44- 7-14	46- 0- 9	50- 6-10	46-11- 7						

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MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
86	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
87	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
88	34- 1- 0	50- 0- 0	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
89	34- 1- 4	49-11-11	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
90	34- 1-15	49-10-15	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
91	34- 2-15	49- 9-13	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
92	34- 4- 3	49- 8- 5	42- 3- 0	50- 0- 0	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
93	34- 5-11	49- 6-11	42- 3- 0	49-11-15	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
94	34- 7- 2	49- 5- 0	42- 3- 3	49-11-11	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
95	34- 8-11	49- 3- 3	42- 3- 8	49-11- 2	49- 5- 0	50- 0- 0	58- 6- 0	50- 0- 0				
96	34-11- 7	49- 0- 1	42- 4- 6	49- 9-11	49- 5- 0	49-11-15	58- 6- 0	50- 0- 0				
97	35- 2- 8	48- 8-10	42- 5-10	49- 7-10	49- 5- 3	49-11- 8	58- 6- 0	50- 0- 0				
98	35- 5-13	48- 4-13	42- 7- 2	49- 5- 3	49- 5-10	49-10- 6	58- 6- 0	49-11-14				
99	35- 9- 9	48- 0- 9	42- 8-14	49- 2- 5	49- 6- 4	49- 8-10	58- 6- 0	49-11- 3				
100	36- 1-11	47- 7-13	42-10-15	48-10-15	49- 7- 2	49- 6- 6	58- 6- 1	49-10- 1				
101	36- 6- 7	47- 2- 7	43- 1- 7	48- 6-14	49- 8- 3	49- 3- 8	58- 6- 1	49- 8- 7				

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MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE J HEIGHT	SIGHT EDGE J HALF BREADTH	SIGHT EDGE K HEIGHT	SIGHT EDGE K HALF BREADTH	SIGHT EDGE L HEIGHT	SIGHT EDGE L HALF BREADTH	SIGHT EDGE M HEIGHT	SIGHT EDGE M HALF BREADTH	SIGHT EDGE N HEIGHT	SIGHT EDGE N HALF BREADTH	SIGHT EDGE 1M HEIGHT	SIGHT EDGE 1M HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
118	39- 1-14	44- 2-10	44- 9- 4	45-10- 4	50- 7- 7	46- 9- 2						
119	39- 4- 2	44- 0- 0	44-10-12	45- 7-13	50- 8- 5	46- 6-14						
120	39- 6- 8	43- 9- 5	45- 0- 2	45- 5- 9	50- 9- 2	46- 4-10						
121	39- 8-13	43- 6-10	45- 1- 9	45- 3- 3	50-10- 0	46- 2- 5						
122	39-10-15	43- 4- 4	45- 2-15	45- 0-15	50-10-13	46- 0- 2						
123	40- 1- 1	43- 1-13	45- 4- 6	44-10- 8	50-11-11	45- 9-13						
124	40- 3- 3	42-11- 7	45- 5-13	44- 8- 3	51- 0- 8	45- 7- 9						
125	40- 5- 6	42- 8-14	45- 7- 4	44- 5-14	51- 1- 6	45- 5- 5						
126	40- 7-11	42- 6- 5	45- 8-10	44- 3- 9	51- 2- 4	45- 2-15						
127	40- 9-15	42- 3-12	45-10- 0	44- 1- 4	51- 3- 1	45- 0-11						
128	41- 0- 4	42- 1- 2	45-11- 6	43-11- 1	51- 3-15	44-10- 4						
129	41- 2- 8	41-10- 9	46- 0-12	43- 8-12	51- 4-13	44- 7-15						
130	41- 4-11	41- 8- 1	46- 2- 2	43- 6- 8	51- 5-10	44- 5-13						
131	41- 7- 2	41- 5- 4	46- 3- 7	43- 4- 6	51- 6- 7	44- 3-10						
132	41- 9- 5	41- 2-12	46- 4-12	43- 2- 3	51- 7- 3	44- 1- 9						

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WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE 0 HEIGHT	SIGHT EDGE 0 HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
-15					79-10- 5	3-10- 8						
-14					79- 8- 5	4-11- 1						
-13					79- 6-10	5- 9-11						
-12			75- 0- 8	3-11- 9	79- 4-14	6- 7-14						
-11			74-11- 8	4- 9- 8	79- 3- 5	7- 5- 4						
-10			74-10- 8	5- 6-10	79- 1-12	8- 2- 3						
-9			74- 9- 5	6- 3-12	79- 0- 3	8-10-12						
-8	63- 6- 9	1- 2- 0	74- 8- 3	7- 0- 6	78-10-10	9- 7- 2						
-7	63- 5- 7	2- 0-12	74- 7- 1	7- 8-10	78- 9- 2	10- 3- 4						
-6	63- 4-10	2- 9- 3	74- 5-15	8- 4-10	78- 7-10	10-11- 1						
-5	63- 3-13	3- 5- 2	74- 4-12	9- 0- 8	78- 6- 3	11- 6-12						
-4	63- 3- 0	4- 1- 7	74- 3- 8	9- 8- 6	78- 4-11	12- 2- 4						
-3	63- 2- 4	4- 9-11	74- 2- 5	10- 4- 2	78- 3- 4	12- 9-10						
-2	63- 1- 8	5- 5-13	74- 1- 2	10-11-13	78- 1-13	13- 5- 0						
-1	63- 0-11	6- 1-15	73-11-14	11- 7- 7	78- 0- 5	14- 0- 4						
0	62-11-14	6-10- 1	73-10- 9	12- 3- 4	77-10-15	14- 7- 6						

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
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SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE O HEIGHT	SIGHT EDGE O HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
1	62-11- 0	7- 6- 3	73- 9- 6	12-10-12	77- 9- 8	15- 2- 5						
2	62-10- 2	8- 2- 2	73- 8- 2	13- 6- 4	77- 8- 0	15- 9- 5						
3	62- 9- 4	8-10-10	73- 6-15	14- 1-10	77- 6- 9	16- 4- 3						
4	62- 8- 6	9- 6-11	73- 5-13	14- 9- 1	77- 5- 2	16-11- 0						
5	62- 7- 9	10- 2-12	73- 4-10	15- 4- 8	77- 3-12	17- 5-12						
6	62- 6-11	10-10-11	73- 3- 7	15-11-13	77- 2- 6	18- 0- 7						
7	62- 5-14	11- 6- 9	73- 2- 5	16- 7- 0	77- 1- 0	18- 7- 1						
8	62- 5- 0	12- 2- 6	73- 1- 3	17- 2- 2	76-11-11	19- 1-10						
9	62- 4- 3	12-10- 3	73- 0- 2	17- 9- 3	76-10- 6	19- 8- 1						
10	62- 3- 6	13- 5-14	72-11- 1	18- 4- 3	76- 9- 2	20- 2- 8						
11	62- 2- 9	14- 1- 8	72- 9-15	18-11- 2	76- 7-14	20- 8-14						
12	62- 1-13	14- 9- 2	72- 8-14	19- 6- 1	76- 6-11	21- 3- 3						
13	62- 1- 1	15- 4-11	72- 7-14	20- 0-14	76- 5- 8	21- 9- 8						
14	62- 0- 5	16- 0- 2	72- 6-12	20- 7-13	76- 4- 4	22- 3-14						
15	61-11- 9	16- 7- 9	72- 5-13	21- 2- 3	76- 3- 2	22- 9-13						
16	61-10-14	17- 2-15	72- 4-13	21- 8- 9	76- 2- 0	23- 3-12						

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SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE O HEIGHT	SIGHT EDGE O HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
17	61-10- 3	17-10- 4	72- 3-14	22- 2-14	76- 0-14	23- 9-11						
18	61- 9- 8	18- 5- 8	72- 2-15	22- 9- 2	75-11-12	24- 3- 9						
19	61- 8-13	19- 0-11	72- 2- 1	23- 3- 5	75-10-10	24- 9- 6						
20	61- 8- 3	19- 7-13	72- 1- 2	23- 9- 8	75- 9- 9	25- 3- 3						
21	61- 7- 8	20- 2-14	72- 0- 4	24- 3-11	75- 8- 7	25- 8-15						
22	61- 6-13	20-11- 2	71-11- 3	24-10-13	75- 7- 4	26- 3-11						
23	61- 6- 1	21- 7- 4	71-10- 3	25- 5-14	75- 6- 0	26-10- 5						
24	61- 5- 6	22- 3- 4	71- 9- 3	26- 0-14	75- 4-12	27- 4-14						
25	61- 4-11	22-11- 4	71- 8- 4	26- 7-13	75- 3-10	27-11- 7						
26	61- 4- 1	23- 7- 2	71- 7- 5	27- 2-10	75- 2- 7	28- 5-14						
27	61- 3- 7	24- 2-15	71- 6- 6	27- 9- 7	75- 1- 4	29- 0- 4						
28	61- 2-13	24-10-10	71- 5- 7	28- 4- 2	75- 0- 2	29- 6- 9						
29	61- 2- 3	25- 6- 4	71- 4- 9	28-10-12	74-11- 1	30- 0-13						
30	61- 1- 9	26- 1-13	71- 3-11	29- 5- 5	74- 9-15	30- 7- 0						
31	61- 1- 0	26- 9- 5	71- 2-13	29-11-13	74- 8-14	31- 1- 1						
32	61- 0- 7	27- 4-12	71- 1-15	30- 6- 3	74- 7-14	31- 7- 1						

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PAGE NO. 154

SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE O HEIGHT	SIGHT EDGE O HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
33	60-11-15	28- 0- 1	71- 1- 2	31- 0- 8	74- 6-14	32- 1- 0						
34	60-11- 7	28- 7- 6	71- 0- 6	31- 6-11	74- 5-15	32- 6-13						
35	60-10-15	29- 2- 9	70-11- 9	32- 0-13	74- 5- 0	33- 0- 9						
36	60-10- 8	29- 9-11	70-10-13	32- 6-13	74- 4- 2	33- 6- 3						
37	60-10- 0	30- 4-12	70-10- 2	33- 0-12	74- 3- 4	33-11-11						
38	60- 9- 9	30-11-11	70- 9- 6	33- 6- 9	74- 2- 7	34- 5- 2						
39	60- 9- 2	31- 6- 9	70- 8-12	34- 0- 5	74- 1-10	34-10- 8						
40	60- 8-11	32- 1- 6	70- 8- 1	34- 5-15	74- 0-15	35- 3-12						
41	60- 8- 5	32- 8- 1	70- 7- 7	34-11- 8	74- 0- 3	35- 8-15						
42	60- 7-15	33- 2-10	70- 6-13	35- 5- 0	73-11- 8	36- 2- 0						
43	60- 7- 9	33- 9- 3	70- 6- 4	35-10- 6	73-10-14	36- 6-15						
44	60- 7- 4	34- 3-10	70- 5-11	36- 3-10	73-10- 4	36-11-14						
45	60- 6- 7	35-11- 5	70- 4- 1	37- 7-10	73- 8- 7	38- 2-10						
46	60- 6- 0	37- 6- 1	70- 2-10	38-10-13	73- 6-14	39- 4- 9						
47	60- 5- 8	38-11-12	70- 1- 7	40- 1- 1	73- 5- 8	40- 5-10						
48	60- 5- 1	40- 4- 3	70- 0- 8	41- 2- 5	73- 4- 6	41- 5-13						

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PAGE NO. 155

SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE O HEIGHT	SIGHT EDGE O HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
49	60- 4-11	41- 7- 6	69-11-12	42- 2- 9	73- 3- 7	42- 5- 1						
50	60- 4- 6	42- 9- 3	69-11- 2	43- 1-14	73- 2-10	43- 3- 8						
51	60- 4- 1	43- 9-10	69-10-10	44- 0- 4	73- 1-15	44- 1- 2						
52	60- 3-13	44- 8-10	69-10- 2	44- 9-13	73- 1- 6	44-10- 3						
53	60- 3- 6	46- 0- 0	66- 7- 7	46- 0- 1								
54	60- 3- 1	46-11-14	63- 5- 0	46-11-15								
55	60- 2-13	47- 9- 3	61- 1- 8	47- 9- 3								
88											0- 4- 2	5-11- 2
89											0- 9- 0	6- 0-15
90											1- 2- 4	6- 3- 6
91											1- 7- 3	6- 6- 4
92											2- 0-11	6-10- 3
93											2- 7- 8	7- 3-12
94											3- 3-14	7-10- 6
95									1- 8-10	4- 4-14	4- 1- 8	8- 4- 7
96									2- 4- 5	4- 6- 7	5- 5- 6	8-11- 7

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE 0 HEIGHT	SIGHT EDGE 0 HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
113											23- 9- 7	3- 0- 0
114											24- 4-13	3- 0- 0
115											24-11-14	3- 0- 0
116											25- 6- 7	3- 0- 0
117											26- 0- 8	3- 0- 0
118											26- 6- 0	3- 0- 0
119											26-10- 9	3- 0- 0
120											27- 2- 7	3- 0- 0
121											27- 5- 3	3- 0- 0
122											27- 6-14	3- 0- 0
123											27- 7-11	3- 0- 0
124											27- 7-15	3- 0- 0
125											27- 7- 8	3- 0- 0
126											27- 6- 5	3- 0- 0
127											27- 4-10	3- 0- 0
128											27- 2-10	3- 0- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE 0 HEIGHT	SIGHT EDGE 0 HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
97									3- 2- 7	4- 8- 3	7- 0-11	9- 4- 9
98									4- 5- 0	4-10- 3	8-10- 0	9- 6- 4
99									5-11- 2	4-11- 5	10- 8- 0	9- 3- 6
100							3-10- 5	3- 9-12	7- 6-11	4-10- 8	12- 5- 6	8- 8- 6
101							4- 6- 4	3- 1- 7	10- 2-14	4- 3- 4	14- 7-13	7- 6-10
102							4- 9-14	2- 9- 4	11- 1-10	3-10-14	15- 6- 6	6-11- 7
103							5- 2- 3	2- 4- 0	12- 0-10	3- 5- 1	16- 4-15	6- 3- 3
104							5- 7- 0	1- 9- 9	12-11-11	2- 9-14	17- 3- 4	5- 6- 0
105							6- 0- 2	1- 1-15	13-10- 3	2- 1- 6	18- 1- 8	4- 7- 7
106							6- 5- 5	0- 5- 1	14- 9- 2	1- 2- 9	18-11-10	3- 7- 4
107											19- 9- 0	3- 0- 0
108											20- 5- 8	3- 0- 0
109											21- 1-13	3- 0- 0
110											21- 9-13	3- 0- 0
111											22- 5-14	3- 0- 0
112											23- 1-12	3- 0- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE 2M HEIGHT	SIGHT EDGE 2M HALF BREADTH	SIGHT EDGE 0 HEIGHT	SIGHT EDGE 0 HALF BREADTH	SIGHT EDGE BW HEIGHT	SIGHT EDGE BW HALF BREADTH	SIGHT EDGE TA HEIGHT	SIGHT EDGE TA HALF BREADTH	SIGHT EDGE TB HEIGHT	SIGHT EDGE TB HALF BREADTH	SIGHT EDGE TC HEIGHT	SIGHT EDGE TC HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16
129											27- 0- 3	3- 0- 0
130											26- 8-14	3- 0- 0
131											26- 4- 0	3- 0- 0
132											27- 6- 5	3- 0- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE TD HEIGHT	SIGHT EDGE TD HALF BREADTH	SIGHT EDGE TD2 HEIGHT	SIGHT EDGE TD2 HALF BREADTH	SIGHT EDGE TE HEIGHT	SIGHT EDGE TE HALF BREADTH	SIGHT EDGE UK HEIGHT	SIGHT EDGE UK HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16				
85							0- 0- 0	6- 4-15				
86							0- 0- 0	5- 6-12				
87							0- 0- 0	4- 9-11				
88							0- 0- 0	4- 2- 6				
89							0- 0- 0	3- 9- 4				
90							0- 0- 0	3- 6- 5				
91							0- 0- 0	3- 4-11				
92							0- 0- 0	3- 3-14				
93							0- 0- 0	3- 3- 9				
94							0- 0- 0	3- 3- 7				
95							0- 0- 0	3- 3- 6				
96							0- 0- 1	3- 3- 2				
97							0- 0- 2	3- 2- 7				
98							0- 0- 0	3- 1- 8				
99							0- 0- 0	3- 0- 4				
100							0- 0- 0	2- 9- 3				

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 42

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE TD HEIGHT	SIGHT EDGE TD HALF BREADTH	SIGHT EDGE TD2 HEIGHT	SIGHT EDGE TD2 HALF BREADTH	SIGHT EDGE TE HEIGHT	SIGHT EDGE TE HALF BREADTH	SIGHT EDGE UK HEIGHT	SIGHT EDGE UK HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16				
101							0- 0- 0	2- 2- 0				
102	15- 4-14	7- 6- 3					0- 0- 0	1-10- 5				
103	16- 1- 8	7- 6-13					0- 0- 1	1- 5- 9				
104	16- 9-15	7- 7-10					0- 0- 0	0-11-10				
105	17- 6- 5	7- 8-12					0- 1- 3	0- 4- 8				
106	18- 2-10	7-10- 0										
107	18-10-11	7-11-10										
108	19- 6-12	8- 1- 8										
109	20- 2- 9	8- 3-10										
110	20- 9-15	8- 5-15										
111			20- 9-12	11- 0- 0								
112			21- 4-15	11- 0- 0								
113			22- 0- 3	11- 0- 0								
114			22- 7- 7	10-11-14								
115			23- 2-10	10-11- 7								
116			23- 9- 8	10-10-13								

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

SIGHT EDGES

FRM.	SIGHT EDGE TD HEIGHT	SIGHT EDGE TD HALF BREADTH	SIGHT EDGE TD2 HEIGHT	SIGHT EDGE TD2 HALF BREADTH	SIGHT EDGE TE HEIGHT	SIGHT EDGE TE HALF BREADTH	SIGHT EDGE UK HEIGHT	SIGHT EDGE UK HALF BREADTH	HEIGHT	HALF BREADTH	HEIGHT	HALF BREADTH
	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16	FT IN 16				
117			24- 4- 0	10- 9-12								
118			24-10- 0	10- 8- 2								
119			25- 3- 6	10- 5-15								
120			25- 8- 1	10- 3- 4								
121			26- 0- 0	9-11-14	26- 2-15	10- 6-14						
122			26- 2-15	9- 7-15	26- 7-15	10- 5- 0						
123			26- 5- 7	9- 2-10	27- 0-14	10- 2-12						
124			26- 7- 3	8- 9- 0	27- 5-10	10- 0- 2						
125			26- 8- 7	8- 2-14	27-10- 7	9- 9- 2						
126			26- 9- 1	7- 7- 7	28- 3- 2	9- 5-12						
127			26- 9- 4	6-11- 5	28- 7-14	9- 2- 0						
128			26- 9- 2	6- 2- 4	29- 0- 8	8-10- 0						
129			26- 8- 7	5- 4-10	29- 5- 1	8- 5-12						
130			26- 6-11	4- 6-10	29- 9- 8	8- 1- 3						
131			26- 3- 4	3- 7-13	30- 1-13	7- 8- 5						
132			26- 6-13	2- 9- 5	30- 6- 1	7- 3- 0						

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

CONTROL LINES

---- STEM ----

FRM.	HEIGHT	HALF BREADTH	LCG	FRM.	HEIGHT	HALF BREADTH	LCG	FRM.	HEIGHT	HALF BREADTH	LCG
	FT IN 16	FT IN 16	FT IN 16		FT IN 16	FT IN 16	FT IN 16		FT IN 16	FT IN 16	FT IN 16
-15	78- 1- 7	0- 0- 0-	30- 0- 0		78- 0- 0	0- 0- 0-	29-10- 8	-14	76- 2- 7	0- 0- 0-	28- 0- 0
	76- 0- 0	0- 0- 0-	27- 9- 8	-13	74- 2- 9	0- 0- 0-	26- 0- 0		74- 0- 0	0- 0- 0-	25- 9- 8
-12	72- 1-12	0- 0- 0-	24- 0- 0		72- 0- 0	0- 0- 0-	23-10- 5	-11	70- 0- 2	0- 0- 0-	22- 0- 0
	70- 0- 0	0- 0- 0-	21-11-14		68- 0- 0	0- 0- 0-	20- 2- 5	-10	67- 9- 6	0- 0- 0-	20- 0- 0
	66- 0- 0	0- 0- 0-	18- 5- 7	-9	65- 5-10	0- 0- 0-	18- 0- 0		64- 0- 0	0- 0- 0-	16- 9- 4
-8	63- 0-10	0- 0- 0-	16- 0- 0		62- 0- 0	0- 0- 0-	15- 1-15	-7	60- 6- 1	0- 0- 0-	14- 0- 0
	60- 0- 0	0- 0- 0-	13- 7- 6		58- 0- 0	0- 0- 0-	12- 1-11	-6	57- 9-10	0- 0- 0-	12- 0- 0
	56- 0- 0	0- 0- 0-	10- 8-14	-5	54-10-14	0- 0- 0-	10- 0- 0		54- 0- 0	0- 0- 0-	9- 4-14
	52- 0- 0	0- 0- 0-	8- 1-15	-4	51- 8-13	0- 0- 0-	8- 0- 0		50- 0- 0	0- 0- 0-	6-11-15
-3	48- 2- 2	0- 0- 0-	6- 0- 0		48- 0- 0	0- 0- 0-	5-10-14		46- 0- 0	0- 0- 0-	4-10-15
	44- 0- 0	0- 0- 0-	4- 0- 0	-2	43-11-15	0- 0- 0-	4- 0- 0		42- 0- 0	0- 0- 0-	3- 2- 4
	40- 0- 0	0- 0- 0-	2- 5-10	-1	38- 6-12	0- 0- 0-	2- 0- 0		38- 0- 0	0- 0- 0-	1- 9-15

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

CONTROL LINES

---- STEM ----

FRM.	HEIGHT	HALF BREADTH	LCG	FRM.	HEIGHT	HALF BREADTH	LCG	FRM.	HEIGHT	HALF BREADTH	LCG
	FT IN 16	FT IN 16	FT IN 16		FT IN 16	FT IN 16	FT IN 16		FT IN 16	FT IN 16	FT IN 16
	36- 0- 0	0- 0- 0-	1- 3- 4		34- 0- 0	0- 0- 0-	0- 9- 9		32- 0- 0	0- 0- 0-	0- 5- 2
	30- 0- 0	0- 0- 0-	0- 2- 3		28- 0- 0	0- 0- 0-	0- 0- 9	0	26- 1-12	0- 0- 0	0- 0- 0
	26- 0- 0	0- 0- 0	0- 0- 0	0	25-11- 1	0- 0- 0	0- 0- 0		24- 0- 0	0- 0- 0-	0- 0- 3
	22- 0- 0	0- 0- 0-	0- 4-14		20- 0- 0	0- 0- 0-	1- 5-12	-1	19- 4-10	0- 0- 0-	2- 0- 0
	18- 0- 0	0- 0- 0-	3- 7- 8	-2	17- 9- 2	0- 0- 0-	4- 0- 0	-3	16- 9-11	0- 0- 0-	6- 0- 0
-4	16- 1-11	0- 0- 0-	8- 0- 0		16- 0- 0	0- 0- 0-	8- 5- 9	-5	15- 6- 4	0- 0- 0-	10- 0- 0
-6	14- 9- 6	0- 0- 0-	12- 0- 0		14- 0- 0	0- 0- 0-	13- 5-13	-7	13- 7-13	0- 0- 0-	14- 0- 0
	12- 0- 0	0- 0- 0-	15- 8- 7	-8	11- 6-15	0- 0- 0-	16- 0- 0		10- 0- 0	0- 0- 0-	16- 9- 3

RED. 6X DATE 7-81
MA. NO. H-22 BLDR. NO. 05-00-03
FRAME NO. 44

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

CONTROL LINES

---- STEM ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
	8- 0- 0	0- 0- 0-	16-11-11		6- 0- 0	0- 0- 0-	16- 4- 2	-8	5- 5- 2	0- 0- 0-	16- 0- 0
	4- 0- 0	0- 0- 0-	14- 9- 1	-7	3- 4-10	0- 0- 0-	14- 0- 0	-6	2- 2- 8	0- 0- 0-	12- 0- 0
	2- 0- 0	0- 0- 0-	11- 6- 5	-5	1- 5- 4	0- 0- 0-	10- 0- 0	-4	0-10- 6	0- 0- 0-	8- 0- 0
-3	0- 5-10	0- 0- 0-	6- 0- 0	-2	0- 2- 6	0- 0- 0-	4- 0- 0	-1	0- 0- 8	0- 0- 0-	2- 0- 0
0	0- 0- 0	0- 0- 0	0- 0- 0	1	0- 0- 0	0- 0- 0	2- 0- 0	2	0- 0- 0	0- 0- 0	4- 0- 0
3	0- 0- 0	0- 0- 0	6- 0- 0	4	0- 0- 0	0- 0- 0	8- 0- 0	5	0- 0- 0	0- 0- 0	10- 0- 0
6	0- 0- 0	0- 0- 0	12- 0- 0	7	0- 0- 0	0- 0- 0	14- 0- 0	8	0- 0- 0	0- 0- 0	16- 0- 0
9	0- 0- 0	0- 0- 0	18- 0- 0	10	0- 0- 0	0- 0- 0	20- 0- 0	11	0- 0- 0	0- 0- 0	22- 0- 0
12	0- 0- 0	0- 0- 0	24- 0- 0	13	0- 0- 0	0- 0- 0	26- 0- 0	14	0- 0- 0	0- 0- 0	28- 0- 0
15	0- 0- 0	0- 0- 0	30- 0- 0	16	0- 0- 0	0- 0- 0	32- 0- 0	17	0- 0- 0	0- 0- 0	34- 0- 0
18	0- 0- 0	0- 0- 0	36- 0- 0	19	0- 0- 0	0- 0- 0	38- 0- 0	20	0- 0- 0	0- 0- 0	40- 0- 0
21	0- 0- 0	0- 0- 0	42- 0- 0	22	0- 0- 0	0- 0- 0	44- 4- 0	23	0- 0- 0	0- 0- 0	46- 8- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

CONTROL LINES

---- STEM ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
24	0- 0- 0	0- 0- 0	49- 0- 0	25	0- 0- 0	0- 0- 0	51- 4- 0	26	0- 0- 0	0- 0- 0	53- 8- 0
27	0- 0- 0	0- 0- 0	56- 0- 0	28	0- 0- 0	0- 0- 0	58- 4- 0	29	0- 0- 0	0- 0- 0	60- 8- 0
30	0- 0- 0	0- 0- 0	63- 0- 0	31	0- 0- 0	0- 0- 0	65- 4- 0	32	0- 0- 0	0- 0- 0	67- 8- 0
33	0- 0- 0	0- 0- 0	70- 0- 0	34	0- 0- 0	0- 0- 0	72- 4- 0	35	0- 0- 0	0- 0- 0	74- 8- 0
36	0- 0- 0	0- 0- 0	77- 0- 0	37	0- 0- 0	0- 0- 0	79- 4- 0	38	0- 0- 0	0- 0- 0	81- 8- 0
39	0- 0- 0	0- 0- 0	84- 0- 0	40	0- 0- 0	0- 0- 0	86- 4- 0	41	0- 0- 0	0- 0- 0	88- 8- 0
42	0- 0- 0	0- 0- 0	91- 0- 0	43	0- 0- 0	0- 0- 0	93- 4- 0	44	0- 0- 0	0- 0- 0	95- 8- 0
45	0- 0- 0	0- 0- 0	103- 0- 0	46	0- 0- 0	0- 0- 0	110- 4- 0	47	0- 0- 0	0- 0- 0	117- 8- 0
48	0- 0- 0	0- 0- 0	125- 0- 0	49	0- 0- 0	0- 0- 0	132- 4- 0	50	0- 0- 0	0- 0- 0	139- 8- 0
51	0- 0- 0	0- 0- 0	147- 0- 0	52	0- 0- 0	0- 0- 0	154- 4- 0	53	0- 0- 0	0- 0- 0	166- 7- 0
54	0- 0- 0	0- 0- 0	178- 9- 0	55	0- 0- 0	0- 0- 0	191- 0- 0	56	0- 0- 0	0- 0- 0	203- 3- 0
57	0- 0- 0	0- 0- 0	215- 5- 0	58	0- 0- 0	0- 0- 0	227- 8- 0	59	0- 0- 0	0- 0- 0	239-11- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

CONTROL LINES

---- STEM ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
60	0- 0- 0	0- 0- 0	252- 1- 0	61	0- 0- 0	0- 0- 0	264- 4- 0	62	0- 0- 0	0- 0- 0	276- 7- 0
63	0- 0- 0	0- 0- 0	288- 9- 0	64	0- 0- 0	0- 0- 0	301- 0- 0	65	0- 0- 0	0- 0- 0	313- 3- 0
66	0- 0- 0	0- 0- 0	325- 5- 0	67	0- 0- 0	0- 0- 0	337- 8- 0	68	0- 0- 0	0- 0- 0	349-11- 0
69	0- 0- 0	0- 0- 0	362- 1- 0	70	0- 0- 0	0- 0- 0	374- 4- 0				

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

MOLD LOFT OFFSETS

WATERMAN LASH

CONTROL LINES

---- SIDE TANG ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
	60- 0- 0	50- 0- 0	305-10- 0		58- 0- 0	50- 0- 0	307- 3-10		56- 0- 0	50- 0- 0	308- 9- 2
	54- 0- 0	50- 0- 0	310- 2- 8		52- 0- 0	50- 0- 0	311- 7-12		50- 0- 0	50- 0- 0	313- 1- 6
65	49- 9-14	50- 0- 0	313- 3- 0		48- 0- 0	50- 0- 0	314- 8- 4		46- 0- 0	50- 0- 0	316- 5- 7
	44- 0- 0	50- 0- 0	318- 5-11		42- 0- 0	50- 0- 0	320- 9- 6		40- 0- 0	50- 0- 0	323- 4-12
66	38- 7- 3	50- 0- 0	325- 5- 0		38- 0- 0	50- 0- 0	326- 3-13		36- 0- 0	50- 0- 0	329- 6- 4
	34- 0- 0	50- 0- 0	332-11- 4		32- 0- 0	50- 0- 0	336- 7- 5	67	31- 5- 7	50- 0- 0	337- 8- 0
	30- 0- 0	50- 0- 0	340- 7-13		28- 0- 0	50- 0- 0	345- 3- 7	68	26- 4- 0	50- 0- 0	349-11- 0
	26- 0- 0	50- 0- 0	350-11-13		24- 0- 0	50- 0- 0	359-11- 3	69	23- 8-15	50- 0- 0	362- 1- 0
70	23- 6- 0	50- 0- 0	374- 4- 0	76	23- 6- 0	50- 0- 0	447- 8- 0	77	23- 7- 2	50- 0- 0	459-11- 0
78	23-10-12	50- 0- 0	472- 1- 0		24- 0- 0	50- 0- 0	474-11- 8	79	24- 5- 0	50- 0- 0	484- 4- 0
80	25- 1-12	50- 0- 0	496- 7- 0		26- 0- 0	50- 0- 0	508- 2-15	81	26- 0- 8	50- 0- 0	508- 9- 0
82	27- 0-12	50- 0- 0	521- 0- 0		28- 0- 0	50- 0- 0	531- 5- 6	83	28- 2- 1	50- 0- 0	533- 3- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

C O N T R O L L I N E S

---- BOTTOM TANG ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
0	0- 0- 0	0- 0- 0	0- 0- 0	1	0- 0- 0	0- 0- 3	2- 0- 0	2	0- 0- 0	0- 0- 6	4- 0- 0
3	0- 0- 0	0- 0-10	6- 0- 0	4	0- 0- 0	0- 0-13	8- 0- 0	5	0- 0- 0	0- 1- 1	10- 0- 0
6	0- 0- 0	0- 1- 5	12- 0- 0	7	0- 0- 0	0- 1- 9	14- 0- 0	8	0- 0- 0	0- 1-14	16- 0- 0
9	0- 0- 0	0- 2- 3	18- 0- 0	10	0- 0- 0	0- 2- 9	20- 0- 0	11	0- 0- 0	0- 2-15	22- 0- 0
12	0- 0- 0	0- 3- 5	24- 0- 0	13	0- 0- 0	0- 3-12	26- 0- 0	14	0- 0- 0	0- 4- 3	28- 0- 0
15	0- 0- 0	0- 4-11	30- 0- 0	16	0- 0- 0	0- 5- 3	32- 0- 0	17	0- 0- 0	0- 5-11	34- 0- 0
18	0- 0- 0	0- 6- 4	36- 0- 0	19	0- 0- 0	0- 6-12	38- 0- 0	20	0- 0- 0	0- 7- 6	40- 0- 0
21	0- 0- 0	0- 7-15	42- 0- 0	22	0- 0- 0	0- 8-11	44- 4- 0	23	0- 0- 0	0- 9- 7	46- 8- 0
24	0- 0- 0	0-10- 3	49- 0- 0	25	0- 0- 0	0-11- 0	51- 4- 0	26	0- 0- 0	0-11-12	53- 8- 0
27	0- 0- 0	1- 0- 9	56- 0- 0	28	0- 0- 0	1- 1- 7	58- 4- 0	29	0- 0- 0	1- 2- 4	60- 8- 0
30	0- 0- 0	1- 3- 2	63- 0- 0	31	0- 0- 0	1- 4- 0	65- 4- 0	32	0- 0- 0	1- 4-14	67- 8- 0
33	0- 0- 0	1- 5-11	70- 0- 0	34	0- 0- 0	1- 6- 9	72- 4- 0	35	0- 0- 0	1- 7- 7	74- 8- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

C O N T R O L L I N E S

---- SIDE TANG ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
84	29- 5- 2	50- 0- 0	545- 5- 0		30- 0- 0	50- 0- 0	550- 4- 5	85	30-11- 3	50- 0- 0	557- 8- 0
86	31-11-12	50- 0- 0	565- 0- 0		32- 0- 0	50- 0- 0	565- 1-10	87	33- 1-12	50- 0- 0	572- 4- 0
	34- 0- 0	50- 0- 0	577- 3- 0	88	34- 5- 5	50- 0- 0	579- 8- 0	89	35-10- 9	50- 0- 0	587- 0- 0
	36- 0- 0	50- 0- 0	587- 7- 0	90	37- 5-12	50- 0- 0	594- 4- 0		38- 0- 0	50- 0- 0	596- 6-11
91	39- 3- 3	50- 0- 0	601- 8- 0		40- 0- 0	50- 0- 0	604- 5- 8	92	41- 3- 3	50- 0- 0	609- 0- 0
	42- 0- 0	50- 0- 0	611- 6- 0	93	43- 5-15	50- 0- 0	616- 4- 0		44- 0- 0	50- 0- 0	617-10-11
94	45-11- 6	50- 0- 0	623- 8- 0		46- 0- 0	50- 0- 0	623- 9-12		48- 0- 0	50- 0- 0	629- 4-10
95	48- 7- 3	50- 0- 0	631- 0- 0		50- 0- 0	50- 0- 0	634- 8- 4		52- 0- 0	50- 0- 0	639- 9- 5
96	53- 4-14	50- 0- 0	643- 3- 0		54- 0- 0	50- 0- 0	644- 8- 5		56- 0- 0	50- 0- 0	649- 5- 6
	58- 0- 0	50- 0- 0	654- 0-10	97	58- 7- 4	50- 0- 0	655- 5- 0		60- 0- 0	50- 0- 0	658- 6- 5

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

C O N T R O L L I N E S

---- BOTTOM TANG ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
36	0- 0- 0	1- 8- 5	77- 0- 0	37	0- 0- 0	1- 9- 3	79- 4- 0	38	0- 0- 0	1-10- 1	81- 8- 0
39	0- 0- 0	1-10-15	84- 0- 0	40	0- 0- 0	1-11-13	86- 4- 0		0- 0- 0	2- 0- 0	86-10- 5
41	0- 0- 0	2- 0-11	88- 8- 0	42	0- 0- 0	2- 1- 8	91- 0- 0	43	0- 0- 0	2- 2- 5	93- 4- 0
44	0- 0- 0	2- 3- 3	95- 8- 0	45	0- 0- 0	2- 5-11	103- 0- 0	46	0- 0- 0	2- 8- 1	110- 4- 0
47	0- 0- 0	2-10- 3	117- 8- 0	48	0- 0- 0	3- 0- 1	125- 0- 0	49	0- 0- 0	3- 1- 9	132- 4- 0
50	0- 0- 0	3- 2-10	139- 8- 0	51	0- 0- 0	3- 3- 0	147- 0- 0	52	0- 0- 0	3- 3- 0	154- 4- 0
53	0- 0- 0	3- 3- 0	166- 7- 0	54	0- 0- 0	3- 3- 0	178- 9- 0	55	0- 0- 0	3- 3- 0	191- 0- 0
56	0- 0- 0	3- 3- 0	203- 3- 0	57	0- 0- 0	3- 3- 2	215- 5- 0	58	0- 0- 0	3- 6- 8	227- 8- 0
	0- 0- 0	4- 0- 0	236- 8- 2	59	0- 0- 0	4- 2- 9	239-11- 0	60	0- 0- 0	5- 3- 0	252- 1- 0
	0- 0- 0	6- 0- 0	259- 2- 3	61	0- 0- 0	6- 7- 4	264- 4- 0		0- 0- 0	8- 0- 0	275- 1- 6
62	0- 0- 0	8- 2- 7	276- 7- 0	63	0- 0- 0	9-11- 5	288- 9- 0		0- 0- 0	10- 0- 0	289- 1- 9
64	0- 0- 0	11- 8-14	301- 0- 0		0- 0- 0	12- 0- 0	302- 9- 8	65	0- 0- 0	13- 5- 8	313- 3- 0

DATE: 11/04/78
JOB NO. C7-1000
DRWG. NO. 05-00-03
WATERMAN

M O L D L O F T O F F S E T S

WATERMAN LASH

C O N T R O L L I N E S

---- BOTTOM TANG ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
	0- 0- 0	14- 0- 0	317- 4-12	66	0- 0- 0	14-11- 8	325- 5- 0		0- 0- 0	16- 0- 0	336- 1-13
67	0- 0- 0	16- 1- 8	337- 8- 0	68	0- 0- 0	16-10-15	349-11- 0	69	0- 0- 0	17- 4- 5	362- 1- 0
70	0- 0- 0	17- 6- 0	374- 4- 0	76	0- 0- 0	17- 6- 0	447- 8- 0	77	0- 0- 0	17- 1-13	459-11- 0
78	0- 0- 0	16- 3-11	472- 1- 0		0- 0- 0	16- 0- 0	475- 7- 1	79	0- 0- 0	15- 1-13	484- 4- 0
	0- 0- 0	14- 0- 0	495- 2-10	80	0- 0- 0	13-10- 4	496- 7- 0	81	0- 0- 0	12- 6- 0	508- 9- 0
	0- 0- 0	12- 0- 0	513- 1- 5	82	0- 0- 0	11- 0-12	521- 0- 0		0- 0- 0	10- 0- 0	529- 7- 5
83	0- 0- 0	9- 6- 8	533- 3- 0		0- 0- 0	8- 0- 0	545- 3- 1	84	0- 0- 0	7-11-12	545- 5- 0
85	0- 0- 0	6- 5- 1	557- 8- 0		0- 0- 0	6- 0- 0	561- 2- 1	86	0- 0- 0	5- 6-11	565- 0- 0

WATERMAN LASH

C O N T R O L   L I N E S

---- SIDE KNUCKLE FWD ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
62	60- 0- 0	50- 0- 0	276- 7- 0		60- 0- 0	50- 0- 0	271- 8- 0				

WATERMAN LASH

C O N T R O L   L I N E S

---- BOTTOM KNU AFT ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
76	0- 0- 0	17- 6- 0	447- 8- 0	77	0- 0- 0	17- 1-13	459-11- 0	78	0- 0- 0	16- 3-11	472- 1- 0
	0- 0- 0	16- 0- 0	475- 7- 1	79	0- 0- 0	15- 1-13	484- 4- 0		0- 0- 0	14- 0- 0	495- 2-10
80	0- 0- 0	13-10- 4	496- 7- 0	81	0- 0- 0	12- 6- 0	508- 9- 0		0- 0- 0	12- 0- 0	513- 1- 5
82	0- 0- 0	11- 0-12	521- 0- 0		0- 0- 0	10- 0- 0	529- 7- 5	83	0- 0- 0	9- 6- 8	533- 3- 0
	0- 0- 0	8- 0- 0	545- 3- 1	84	0- 0- 0	7-11-12	545- 5- 0	85	0- 0- 0	6- 5- 1	557- 8- 0
	0- 0- 0	6- 0- 0	561- 2- 1	86	0- 0- 0	5- 6-11	565- 0- 0				

WATERMAN LASH

C O N T R O L   L I N E S

---- STERN LINE ----

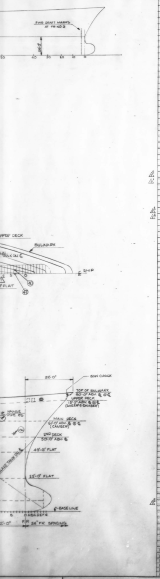
FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
76	0- 0- 0	0- 0- 0	447- 8- 0	77	0- 0- 0	0- 0- 0	459-11- 0	78	0- 0- 0	0- 0- 0	472- 1- 0
79	0- 0- 0	0- 0- 0	484- 4- 0	80	0- 0- 0	0- 0- 0	496- 7- 0	81	0- 0- 0	0- 0- 0	508- 9- 0
82	0- 0- 0	0- 0- 0	521- 0- 0	83	0- 0- 0	0- 0- 0	533- 3- 0	84	0- 0- 0	0- 0- 0	545- 5- 0
85	0- 0- 0	0- 0- 0	557- 8- 0	86	0- 0- 0	0- 0- 0	565- 0- 0	87	0- 0- 0	0- 0- 0	572- 4- 0
88	0- 0- 0	0- 0- 0	579- 8- 0	89	0- 0- 0	0- 0- 0	587- 0- 0	90	0- 0- 0	0- 0- 0	594- 4- 0
91	0- 0- 0	0- 0- 0	601- 8- 0	92	0- 0- 0	0- 0- 0	609- 0- 0	93	0- 0- 0	0- 0- 0	616- 4- 0
94	0- 0- 0	0- 0- 0	623- 8- 0	95	0- 0- 0	0- 0- 0	631- 0- 0	96	0- 0- 0	0- 0- 0	643- 3- 0
97	0- 0- 0	0- 0- 0	655- 5- 0	98	0- 0- 0	0- 0- 0	667- 8- 0	99	0- 0- 0	0- 0- 0	679-11- 0
100	0- 0- 0	0- 0- 0	692- 1- 0	101	0- 0- 0	0- 0- 0	704- 4- 0	102	0- 0- 0	0- 0- 0	708- 0- 0
103	0- 0- 0	0- 0- 0	711- 8- 0	104	0- 0- 0	0- 0- 0	715- 4- 0	105	0- 1- 3	0- 0- 0	719- 0- 0
	2- 0- 0	0- 0- 0	722- 0- 0	106	3- 1- 8	0- 0- 0	722- 8- 0		4- 0- 0	0- 0- 0	723- 1-10
	6- 0- 0	0- 0- 0	724- 2- 6		8- 0- 0	0- 0- 0	725- 3- 3	107	10- 0- 0	0- 0- 0	726- 4- 0

WATERMAN LASH

C O N T R O L   L I N E S

---- STERN LINE ----

FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16	FRM.	HEIGHT FT IN 16	HALF BREADTH FT IN 16	LCG FT IN 16
107	10- 0- 1	0- 0- 0	726- 4- 0	107	10- 0- 2	0- 0- 0	726- 4- 0		12- 0- 0	0- 0- 0	726- 4- 0
	14- 0- 0	0- 0- 0	726- 4- 0		16- 0- 0	0- 0- 0	726- 4- 0		18- 0- 0	0- 0- 0	726- 4- 0
	20- 0- 0	0- 0- 0	727-11- 2	108	20- 7- 2	0- 0- 0	730- 0- 0	109	21- 3- 6	0- 0- 0	733- 8- 0
110	21-11- 8	0- 0- 0	737- 4- 0		22- 0- 0	0- 0- 0	737- 6-13	111	22- 7- 9	0- 0- 0	741- 0- 0
112	23- 3- 7	0- 0- 0	744- 8- 0	113	23-11- 2	0- 0- 0	748- 4- 0		24- 0- 0	0- 0- 0	748- 9- 2
114	24- 6- 8	0- 0- 0	752- 0- 0	115	25- 1- 8	0- 0- 0	755- 8- 0	116	25- 8- 2	0- 0- 0	759- 4- 0
	26- 0- 0	0- 0- 0	761- 7-11	117	26- 2- 3	0- 0- 0	763- 0- 0	118	26- 7-10	0- 0- 0	766- 8- 0
119	27- 0- 5	0- 0- 0	770- 4- 0	120	27- 4- 1	0- 0- 0	774- 0- 0	121	27- 6-14	0- 0- 0	777- 8- 0
122	27- 8- 8	0- 0- 0	781- 0- 0	123	27- 9- 6	0- 0- 0	784- 4- 0	124	27- 9-10	0- 0- 0	787- 7- 0
125	27- 9- 3	0- 0- 0	790-10- 0	126	27- 7-15	0- 0- 0	794- 1- 0	127	27- 6- 4	0- 0- 0	797- 4- 0
128	27- 4- 4	0- 0- 0	800- 7- 0	129	27- 1-14	0- 0- 0	803-10- 0	130	26-10- 9	0- 0- 0	807- 0- 0
131	26- 5-11	0- 0- 0	810- 2- 0	132	26- 6-13	0- 0- 0	813- 4- 0				



LIST OF SHELL OPENINGS

ITEM	FUNCTION	SIZE	REMARKS	PORT OR STBD	DIST. FM. ℄	DIST. FWD	DIST. AFT	FR.	HEIGHT ABV. ℄	REF.
1	BLEEDER PLUG FORE PEAK S.W.B.T.	1½" DIA.		S	6"	6"		21		3
2	" " FWD S.W. BALLAST TK.	"		S	8"	8"		44		3
3	" " FUEL OIL TANK	"		P/S	2'-4"	12"		52		3
4	" " Nº 1 S.W. B.T.	"		P	2'-4"	12"		55		3
5	" " VOID 1-A	"		S	2'-4"	12"		58		3
6	" " VOID 1-B	"		S	2'-4"		6'-10	58		3
7	" " VOID 1-B	"		S	2'-4"	23		61		3
8	" " Nº 2 S.W.B.T (DB)	"		P/S	2'-4"	23		70		3
9	" " Nº 3 S.W.B.T. (DB)	"		P/S	2'-4"	2'-5"		76		4
10	" " Nº 4 S.W.B.T. (DB)	"		P/S	2'-4"	3'-9"		85		4
11	" " ENGINE ROOM VOID	"		S	3'-7"	12"		95	3½"	4
12	" " Nº 6 F.O. WING TANK	"		S	6'-5"		12"	95	3'-8"	4
13	" " Nº 6 DB. VOID	"		P	2'-6½"	12"		101	3½"	4
14	" " Nº 7 S.W.B.T	"		P	2'-3½"		12"	101	3½"	4
15	" " AFT S.W.B.T	"		P/S	14'-6"		12"	121	26'-10⅞"	4
16	" " Nº 6 F.O. WING TANK	"		P	11'-6"		12"	95	4'-8"	4
17	" " TRANSOM COFFERDAM	"		S	9"		6"	131	26'-6	4
18	" " DIESEL OIL TANK	"		P/S	36'-0"		12"	85	5'-4"	4
19	" " Nº 7 S.W.B.T	"		S	9'-0"		12"	101	14'-8"	4
20	RUDDER HORN DRAIN PLUG	1" DIA.		℄			15"	125	14'-6½"	23
21	MAIN INJECTION - SEA SCOOP	4'-6"x15'-3"		S	14'-0"	2'-10"		88		24
22	MAIN OVBD. DISCHARGE	3'-7½x5'-6"	W/9" LIP	P	26'-7¾"	2'-5"		91		24
23	MAIN SEA CHEST	2'-10"x7'-2"		S	21'-6½"		3'-9½"	89		25
24	" " "	2'-10"x3'-9⅞"		S	21'-6½"	2'-10⅝"		89		25
25	" " "	2'-10"x2'-0½"		S	21'-6½		2'-0⅛"	90		25
26	STBD. BILGE & BALLAST SEA CHEST	2'-4"x4'-2"		S	21'-9½"	2'-2"		93		26
27	PORT " " " "	"		P	24'-3½"	2'-2"		93		26
28	STANDBY FIRE PUMP SEA CHEST	2'-6"x2'-0"		P			16⅞"	95		26
29	OVBD. DISCH. STEERING GEAR FLAT	2" DIA.		P/S	39'-7⁵⁄₁₆"	6"		132	39'-6"	27
30	OVERFLOW FWD. FLUME TANK	8" DIA.		S	42'-2"	11"		55	46'-8"	27
31	OVERFLOW FROM Nº 1 S.W.B.T.	8" DIA.		S	37'-11¼"		6'-4½	52	46'-8"	27
32	L.O. & F.W. COOLERS OVBD. DISCH.	12" DIA.	W/2½" LIP	S	39'-10⅛"	15"		95	15'-4"	27
33	BRINE OVBD. DISCHARGE	4" DIA.		S	40'-9⅞"	15"		95	16'-2⅞"	27
34	EMERGENCY BILGE SUCT. & DIESEL GEN. S.W. CLRS. OVBD. DISCHARGE	6" DIA.		P	39'-6"		3'-8"	90	11'-2½"	27
35	OVBD. DISCH. LARGE BILGE & BALLAST PUMP	12" DIA.		S	43'-4⅛"		17½"	90	14'-9⅜"	27
36	OVBD. DISCH. MISC. DK. DRAINS	2" DIA.		P	3'-1¾"		7"	12	26'-3"	27
37	BOILER BLOW DOWN OVBD. DISCH.	1½" DIA.		S	39'-2⅞"		3'-3"	88	9'-1¾"	27
38	OVBD. DISCH. 2ND DK. ACCESS TUNNEL DRAINS	2" DIA.		P/S	40'-11"		6'-11"	57	25'-6"	27
39	OVBD. DISCH. MISC. DK. DRAINS	2" DIA.		P	49'-0"		16½	89	26'-0"	27
40	TRANSDUCER SPEED LOG DOPPLER	3½" DIA.		S	2'-5"	12"		4	6"	8
41	BLEEDER PLUG OIL RESIDUE TANK	1½" DIA.		P/S	2'-4"	12"		87		4
42										
43	ENGINE ROOM SEWAGE HOLDING TK. & MISC. DRAIN OVBD. DISCHARGE	3" DIA.		S	49'-2⅟₁₆"	3'-5¼"		89	26'-0"	27
44										
45	OVBD. DISCH. EMERGENCY FREON	2" DIA.		S	33'-8"	15"		51	43'-4"	27
46	TRANSDUCER RAYETHON MODEL DE 741	10⅞" DIA.		℄		12"		12		8
47	" " DEPTH SOUNDER MODEL DE 740	6⅛" DIA.		℄		12"		4		8
48	CATHODIC PROTECTION	1½" DIA.		P/S		12"		21	11'-6"	3
49	" "	1½" DIA.		S			14"	43	7'-0"	3
50										
51	" "	1½" DIA.		P/S			6'-1"	79	9'-0"	4
52	" "	"		S			3'-8"	89	10'-0"	4
53	" "	"		P/S		6'-1½"		101	10'-8"	4
54	GARBAGE DISPOSAL SYSTEM DISCH.	18" DIA.		S	16'-6"		15"	41	31'-2½"	28
55	UPPER DK. DRAIN	2" DIA.		P/S	31'-1½"	6"		35	69'-6"	29
56	" " "	"		P/S	34'-6"	6"		42	69'-2"	29
57	BARGE MOORING BITT	2'-3"x19"		P/S	50'-0"		4'-8"	73	34'-7"	32
58	" " "	"		P/S	43'-4"	3'-8"		58	"	32
59	" " "	"		P/S	48'-6"	6'-1"	6'-1"	62	"	32
60	" " "	"		P/S	50'-0"		3'-8"	67	"	32
61	" " "	"		P/S	"		2'-6"	78	"	32
62	" " "	"		P/S	"	2'-6"		83	"	32
63	" " "	"		P/S	"		3'-8"	89	"	32
64										
65										
66										
67										
68	STEWARD / COOK OFFICE	17½" DIA		S				32-33	65'-10"	31
69	WIPER	"		P				"	"	31
70										
71	SPARE S.R.	"		S				35-36	65'-9½"	31
72	QMED #1.	"		P				"	"	31
73										
74	G. UTILITY #1	"		S				38-39	65'-9"	31
75	QMED #2	"		P				"	"	31
76										
77	G. UTILITY #2	"		S				41-42	65'-8½"	31
78	QMED #3	"		P				"	"	31
79										
80	G. ULTILITY #3	"		S				44½-45½	65'-8"	31
81	O.S. #1	"		P				"	"	31
82										
83	O.S. #2	"		P				45½-46½	65'-7½"	31
84										
85	COOK / BAKER	"		S				45½-46	65'-7⅛"	31
86	QMED DAYWORKER.	"		P				46½-46½	65'-7"	31
87										
88	STEWARD / COOK	"		S				47-47½	65'-6½"	31
89	TECHNICIAN S.R.	"		P				47½-48½	"	31
90										
91	BOSUN	"		S				48½-49½	65'-6"	31
92	MAINT. ELECT.	"		P				"	"	31
93										
94	5" SEWAGE TREAMENT PLANT BY-PASS & EFFLUENT DR. OVBD. DISCH.	5" DIA		P	35'-4⅝"		5'-6"	55	22'-0"	27
95	GALLEY & MISC. DRAIN OVBD. DISCH.	2½" DIA.		P	34'-11⅞"		2'-9⅛"	55	22'-5½"	27
96	A.C. CONDENSERS OVBD. DISCH.	4" DIA.		S	29'-4⅞"	1'-1½"		53	23'-0"	27
97	BLEEDER PLUG Nº 6 F.O. WING TANK	1½" DIA.		P	8'-6"		4'-1"	95	4'-8"	4
98	" " ENGINE ROOM VOID	"		P	2'-4"	12"		89		4
99	" " DRAIN WELL	"		P	2'-4"	12"		90		4
100	CATHODIC PROTECTION	2¼" DIA.		P			1'-10"	119	27'-2"	4
101	CATHODIC PROTECTION	22.5"x11.5"		P/S			1'-10"	111	24'-9"	4
102	AFTER FLUME TK. OVERFLOW	8" DIA.		P		11"		58	46'-8"	27
103	DBL. BOTT. BALL. TK. OVERFLOW FR 61-70	10" DIA.		P/S			9'-5⅛"	61	46'-8"	27
104	" " " " " FR 70-76	10" DIA.		P/S			7'-11¼"	71	46'-8"	27
105	" " " " " FR 76-85	10" DIA.		P/S			7'-11¼"	77	46'-8"	27
106	FORE PEAK S.W. BALL TK. OVERFLOW	14" DIA.		P		3"		4	52'-3½"	27
107	FWD. S.W. BALL TK. OVERFLOW	12" DIA.		P		4"		25	46'-1¾"	27
108	AFT. S.W. BALL TK. OVERFLOW	16" DIA.		P/S		12"		125	53'-6¼"	27

GENERAL NOTES

1. ALL DIMENSIONS ARE MOLDED DIMENSIONS UNLESS OTHERWISE NOTED.
2. SEE REF. #34 FOR SHELL PAINTING.
3. PRINCIPAL CHARACTERISTICS:
   - L.O.A. (INCLUDING CRANE OVERHANGS) — 893'-4"
   - L.B.P. — 797'-4"
   - BEAM MAX. (MOLDED) — 100'-0"
   - BEAM MAX. — 100'-2¾"
   - DEPTH AT LOWEST POINT OF SHEER (MLD. @ SIDE) — 60'-0"
   - DRAFT FULL LOAD (KEEL) — 38'-1½"
   - DISPLACEMENT FULL LOAD — L. TONS — 57,033.7 L. TONS
   - DISPLACEMENT LIGHT SHIP (APPROX.) — L. TONS — 16,518.3 L. TONS
   - GROSS TONNAGE — 29965.05
   - NET TONNAGE — 22468.00

REVISIONS

REV	ZONE	DESCRIPTION
1	3,5,7	1. DET. 6-B & LIST OF SHELL OPNGS:- INDICATED OIL RESIDUE TANK BETW FR. 86 - 87 & ADDED ITEM 41.
	3,5	2. REVISED LOCATION OF ITEM 46 & 47. ADDED ITEM 40. THIS RELEASES RES. #1.
	1	3. RELEASED RES. #2.
	5,6	4. RELOCATED CRANE TIE-DOWN. THIS RELEASES RES #3.
	12,13	5. REVISED DET. 12-A. BG CWD
2	5, 3	1. DET 6-A: DELETED FATHOMETER WELL AT FR 58. 2. LIST OF SHELL OPENINGS - ITEM NO 6: REVISED FUNCTION TO READ VOID 1-B. BR
3	1,2	1. TONAGE ADDED, RESERVATION #4 RELEASED

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G L772/1085 DEC. 4, 1978				
1	4-3-79	F&G L772/1104 APR. 23 '79				
2						
3	1/7/81	F+G 1-26-81				
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
~~4~~	~~DISPLACEMENT, GROSS & NET TONNAGE PENDING DEVELOPMENT~~
~~3~~	~~CONTAINER CRANE STORAGE PENDING DEVELOPMENT.~~
~~2~~	~~GALLEY & MISC. DRAIN OVBD. DISCH. PENDING DEVELOPMENT~~
~~1~~	~~LOCATION OF TRANSDUCERS PENDING DEVELOPMENT~~

REFERENCES

REV	NO	TITLE	DRAWING NO
	39	CAPACITY PLAN	29-01-01
	38	SHAFTING WRENCHES & PILGRIM NUTS WITHDRAWALS TOOLS	43-01-04
	37	GANTRY CRANE INSTALLATION DETAILS	17-01-01
	36	PROPELLER - SHAFT & STERN TUBE SHAFT WITHDRAWING ARRG'T. & DETAILS.	12-05-07
	35	MOORING ARRG'T. & FDNS.	12-01-01
	34	PAINTING & DECK COVERING SCHEDULE.	19-01-01
	33	FOREPEAK FRAMING TRANSV. SECT. FWD. OF FR. 9	11-03-013
	32	BARGE MOORING BITTS	12-01-06
	31	LIST OF WINDOWS & FIXED LIGHTS	16-02-03
	30	SHIPS NAME, HAILING PORT, HULL MARKINGS & OWNERS INSIGNIA	28-04-01
	29	WEATHER DK. DRAINS UPPER LEVEL & ABOVE	48-08-41
	28	ARRGT. & DETAILS GARBAGE DISPOSAL SYS.	36-04-01
	27	OVERBOARD DISCHARGE DETAILS	48-23-10
	26	SEA CHEST S.W. SERVICE	48-23-02
	25	MAIN SEA CHEST	48-23-01
	24	MAIN INJECTION SEA SCOOP & MAIN OVERBOARD DISCHARGE	48-23-04
	23	STERN FR. RUDDER HORN & SHAFT STRUT CASTINGS	11-08-01
	22	MIDSHIP SECTION	11-11-01
	21	MISC. BHDS. BELOW MAIN DK. FWD.	11-05-08
	20	W.T. LONG'L BHD. 35'-0" & 40'-0" OFF ℄ AFT.	11-05-07
	19	W.T. LONG'L BHD. 35'-0" & 40'-0" OFF ℄ FWD.	11-05-06
	18	BHDS. 101 & 121	11-05-05
	17	BHDS. 90 & 95	11-05-04
	16	BHDS 61, 70, 76, & 85	11-05-03
	15	W.T. BHDS. 55 & 58	11-05-02
	14	O.T./W.T. BHDS. 44, & 52 AND N.T. SWASH BHD. 48	11-05-01
	13	C.V.K. GIRDERS & SHELL LONG'L. INNER BOTTOM AFT.	11-04-02
	12	C.V.K. GIRDERS & SHELL LONG'L INNER BOTTOM FWD.	11-04-01
	11	FLOORS AFT.	11-03-04
	10	FLOORS FWD.	11-03-03
	9	FOREPEAK FRAMING TRANSV. SECTS. FRS. 9-21	11-03-012
	8	FOREPEAK	11-03-01
	7	INNER BOTTOM PLATING & FRAMING AFT.	11-02-02
	6	INNER BOTTOM PLATING & FRAMING FWD.	11-02-01
	5	BILGE KEEL	11-01-03
	4	SHELL EXPANSION AFT.	11-01-02
	3	SHELL EXPANSION FWD.	11-01-01
	2	BODY PLAN	05-00-04
	1	TABLE OF OFFSETS	05-00-03

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY B. G. DATE NOV. 1978
CHECKED BY W.M. DATE 11-8-78
APVD W. G. Seibert Jr. NOV. 10, 1978
APVD PROJECT MANAGER 11/13/78
APVD VP/CHIEF ENGINEER

DOCKING PLAN

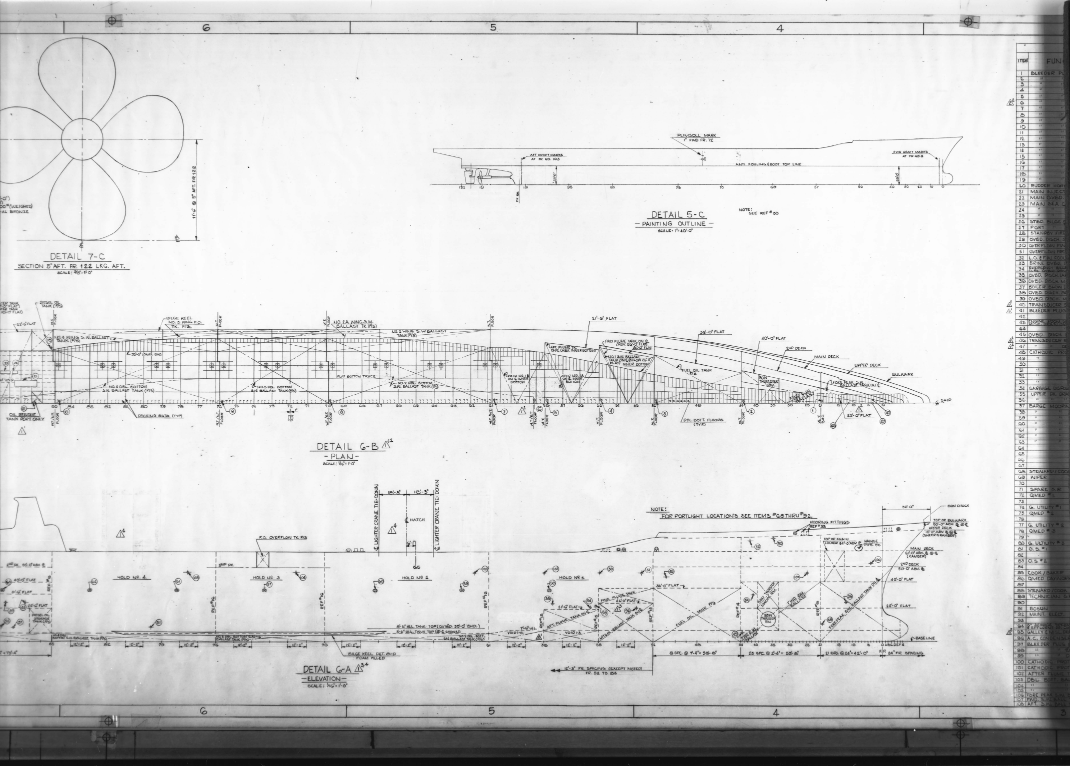
SIZE H — A S I DWG NO C7-1000 07-00-01 — REV 3
SCALE AS NOTED

A S I DWG NO C7-1000 07-00-01 REV 3

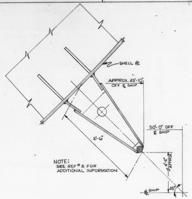
DISTRIBUTION

DEPARTMENT	PRELIM	REVISION
PRODUCTION		
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COMPUTER APPL		
ELECTRICAL		
ENGR STANDARDS		
FILES & RECORDS		
HULL		
HULL COMPOSITE		
DESIGN		
OUTFITTING		
STL TAKE OFF		
H V A C		
MATERIAL REQN		
MECHANICAL		
MECH COMPOSITE		
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR		
ADMEASURER		
ABS (NY)		
ABS (NO)		
ABS (YARD)		
USCG (NO)		
USCG (YARD)		
USPHS		
OWNER (HOME)		
OWNER (YARD)		
MARAD (WASH)		
MARAD (YARD)		
TOTAL		
DATE OF PRINT ISSUE		

C7-1000 07-00-01

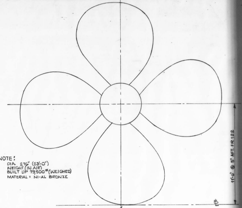


RED. 8X DATE 7-81
MA. NO. H-23 BLDR. NO. 07-00-01
FRAME NO. 2



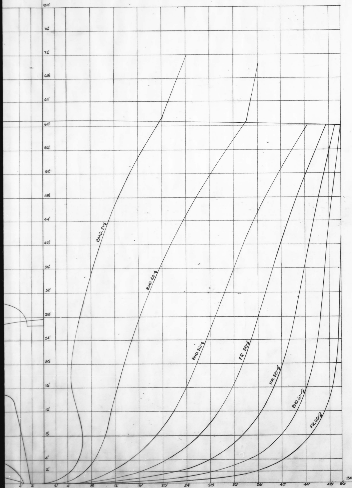
NOTE:
SEE REF # 3 FOR ADDITIONAL INFORMATION

DETAIL 8-D
BILGE KEEL FR. 87
SCALE : 1½" = 1'-0"

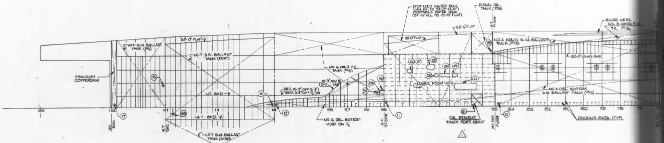


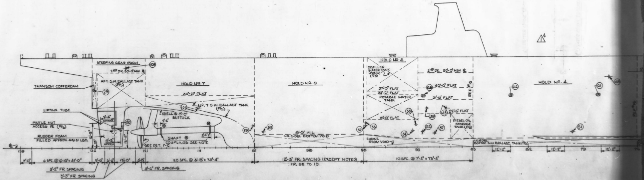
NOTE:
DIA. 27'6" (23'-0")
WEIGHT (IN AIR)
BUILT UP 73,500# (WEIGHED)
MATERIAL: NI-AL BRONZE

DETAIL 7-C
SECTION 5" AFT. FR. 122 LKG. AFT.
SCALE: 3/8" = 1'-0"



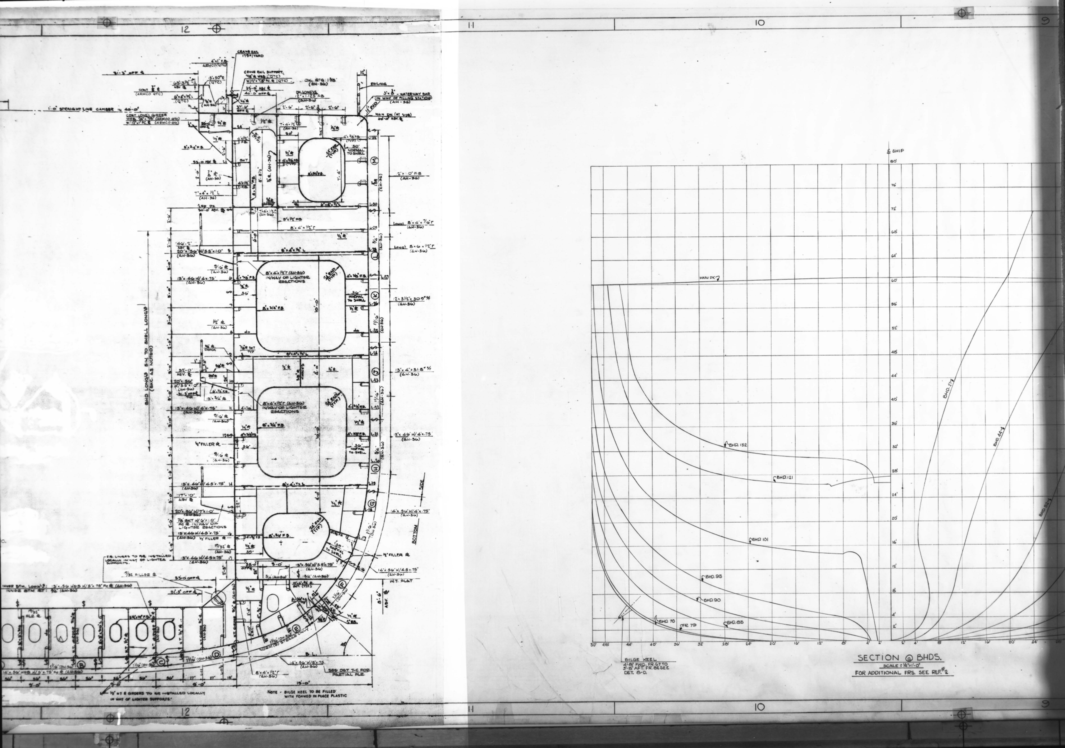
SECTION @ BHDS.
SCALE: 1/4" = 1'-0"
FOR ADDITIONAL FRS. SEE REF. # 2





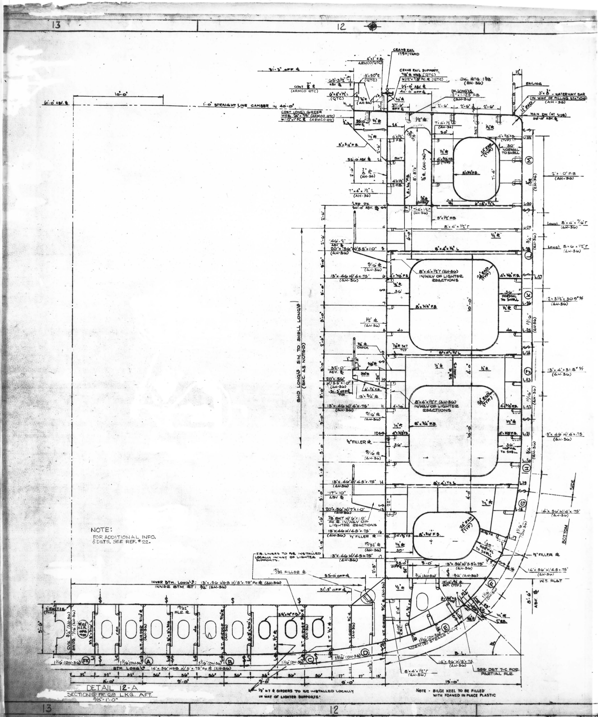
NOTE:
SEE REF. DWG. NO. 38 FOR INFORMATION ON USE OF PILGRIM NUTS & SHAFT WITHDRAWAL.

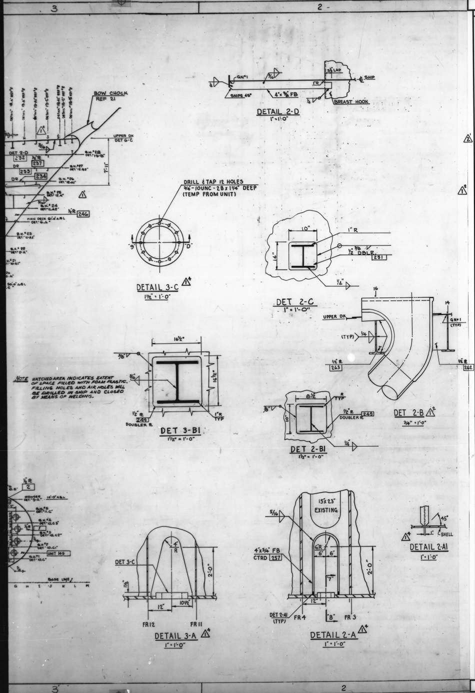
* CAUTION
STERN TUBE SHAFT & TAIL SHAFT FITTED IN PRECISION BORED BABBITT-LINED BEARINGS WITH CLOSE TOLERANCE OIL SEALS. HANDLE STERN TUBE SHAFT, TAIL SHAFT & SEALS WITH EXTREME CARE.



SECTION @ BHDS.
SCALE: 1/4"=1'-0"
FOR ADDITIONAL FRS. SEE REF. #2
MAIN DK
BILGE KEEL
Note - BILGE KEEL TO BE FILLED WITH FOAMED IN PLACE PLASTIC

RED. 8X DATE 7-81
MA. NO. H-23 BLDR. NO. 07-00-01
FRAME NO. 5





GENERAL NOTES

1. ALL SNIPES REFERRED TO THIS NOTE ARE 7/16" X 7/16" AND SEAL WELDED AFTER FABRICATION.
2. UPPER DECK HAS SHEER & CAMBER AND THE MOLDED LINE IS THE UNDERSIDE OF PLATE WHICH IS FLUSH.
3. MAIN DECK HAS CAMBER BUT NO SHEER AND THE MOLDED LINE IS THE UNDERSIDE OF PLATE WHICH IS FLUSH.
4. 2ND DECK, FLATS, STRINGERS, RIDER PLATE AND BREASTHOOK HAVE NO SHEER AND NO CAMBER, THE MOLDED LINE IS THE UNDERSIDE OF PLATE WHICH IS FLUSH.
5. MOLDED LINE OF BHDS & LONGL GIRDERS ON CL OF SHIP IS THE CENTER OF THE WEB.
6. MOLDED LINE OF BHDS & LONGL GIRDER NOT ON CL OF SHIP IS THE INBOARD FACE OF PLATE.
7. MOLDED LINE OF FLOORS AND TRANSV BHDS SHALL BE THE **AFT** SIDE OF THE PLATE, THE STIFFENER SIDE OF BULKHEAD IS TO BE FLUSH.
8. WELD TO BE WRAPPED AT ALL SNIPES IN N.T. STRUCTURE ON THIS DWG.
9. (△2[1]) MOLDED LINE OF ANGLE, TEE-SECT, FLG PLS ETC... IS THE AFT SIDE OF THE WEB.
10. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES & REF #13.
11. FOR PAINTING & SURFACE PREPARATION SEE REF #11.
12. ALL MANHOLES, HATCHES & SCUTTLES TO BE CUT FROM REF #14 AFTER NOTIFYING ENG. DEPT.
13. ALL SCALLOPS TO BE 2" RADIUS UNLESS NOTED OTHERWISE.
14. (△1[2]) LAST PC NO USED [283] IN DET. 6-B

REVISIONS

REV	ZONE	DESCRIPTION
1	3,4	1. DET 4-A ADDED SEAM IN ℄ BHD 7'-11" BLW UPPER DK & ADDED PC NO 246 TO SUIT. THIS INCORPS REV NOTICE NO H-133
	VAR.	2. DET 6-C: REVISED SCANTLING TO SUIT DEVELOPMENT OF REF #16 & 17. REVISED DET 4-A, 5-D1, 6-B, 6-D & 14-B VOIDED DET 8-D. ADDED REF #21, DET 2-B, 4-D, 4-D1, 5-A2, 5-B, 5-D, 12-D1, 12-D2 & PC NO 247-256, 262-282. THIS RELEASES RES. #1.
	1,6,7 8	3. DETS 6-A & 7-C INDICATED REV LOCATION OF HATCH & ACC OPNG IN ACC TRUNK BETWN FRS 19 & 21 AND REV STIFF TO SUIT. THIS RELEASES RES #3.
	2,3,4 7,8,9 13,14	4. DET 4-A: BETWN FR 3-4 & FR 11-12 ADDED CUT OUT FOR TRANSDUCERS. REVISED STRUCTURE TO SUIT. ADDED DET 2-A, 2-A1, 3-A, 3-C, 7-B1, 13-C1, SECT 7-B, 8-B, 9-D, 14-C & PC NOS 257-261 TO SUIT.
	5,6	5 DET 6-A: BETWN FR 11-21 REVISED THK OF PC NO 51 & 52 FROM 3/8" TO 5/8" PL. JOB CWD
2	1	1. GEN NOTE #9 REVISED TO READ AS FOLLOWS: MOLDED LINE OF ANGLES, TEE-SECT, FLG PLS ETC. IS THE AFT SIDE OF THE WEB. THIS ITEM INC REV NOTICE H-374.
	6,7,9	2. DET 6-C: TRANSV BUTT @ FR 21 TO BE DET 2-B REF #13 DET 7-C: TRANSV BUTTS TO BE DET 5 REF #13. DET 9-A: DET 9-B: DET 9-C: THIS ITEM RELEASES RES #2 & INC. REV NOTCE H-319.
	6	3. DET 6-C: REVISED INSERT PLS FOR DBL BITT P/S BETWN FRS C & 5
	6	4. DET 6-C: REVISED LOCATION STRUCTURAL STANCHION @ FR 5 P/S TO FR 4. REVISED DET 6-B, 6-A, ADDED PC NO 283 & DELETED PC NO 185 TO SUIT. JNB

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G L-112/788 7-5-78	DEC 5 '78			
1	1-24-79	F&G L-112/1853 5-19-79				
2	5-30-79	F&G 7-5-79				
3						
4						
5						
6						
7						
8						
9						
10						

REFERENCES

REV	NO	TITLE	DRAWING NO
△1[2]	21	BOW CHOCK	12-01-02
	20	VERTICAL LADDERS ARRGT AND DETS	16-04-03
	19	MAIN DECK BHDS	11-07-01
	18	VENT. DUCT & PIPE HOLE LIST	38-10-339
	17	MOORING ARRGT & FOUNDATIONS	12-01-01
	16	ANCHOR HANDLING ARRGT	26-05-01
	15	FLOORS FWD	11-03-03
	14	MANHOLE, HATCH & SCUTTLE LIST	16-02-01
	13	WELDING DETAILS	29-06-01
	12	HAWSE PIPE & CHAIN PIPE	26-05-02
	11	PAINTING & DECK COVERING SCHEDULE	19-01-01
	10	SHELL LONGL & STRINGERS FWD	11-04-03
	9	UPPER DK PLTG & FRAMING	11-06-09
	8	BOW THRUSTER COMPT & FLATS (7'-6", 22'-0" & 44'-0") FR 21-44	11-06-06
	7	MAIN DK PLTG & FRAMING FWD	11-06-03
	6	2ND DK PLTG & FRAMING FWD	11-06-01
	5	C.V.K. GIRDERS & LONGL FWD	11-04-01
	4	INNER BOTTOM PLTG & FRAMING FWD	11-02-01
	3	SHELL EXPANSION FWD	11-01-01
	2	FORE PEAK FR SECTIONS FWD FR 9	11-03 013
	1	FORE PEAK TRANSV SECTIONS FR 9 TO 21	11-03-012

RESERVATIONS

	NO	DESCRIPTION
△1[3]	~~3~~	~~RESERVE PENDING RECEIPT OF WINDLASS VENDOR DWGS.~~
△2[2]	~~2~~	~~RESERVE SEAMS AND BUTT PENDING DEVELOPMENT OF WELDING PROCEDURES~~
△1[2]	~~1~~	~~RESERVE UPPER DK STRUCTURE PENDING DEVELOPMENT REF #16 & #17~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY AKM DATE 7/78
CHECKED BY CWD DATE AUG '78
APVD W. S. Seibert Jr. Aug. 30, 1978
APVD [signature] 8/31/78 PROJECT MANAGER
APVD [signature] VP/CHIEF ENGINEER

FORE PEAK

SIZE H — A S I DWG NO **C7-1000** 11-03-01 — REV 2
SCALE AS NOTED

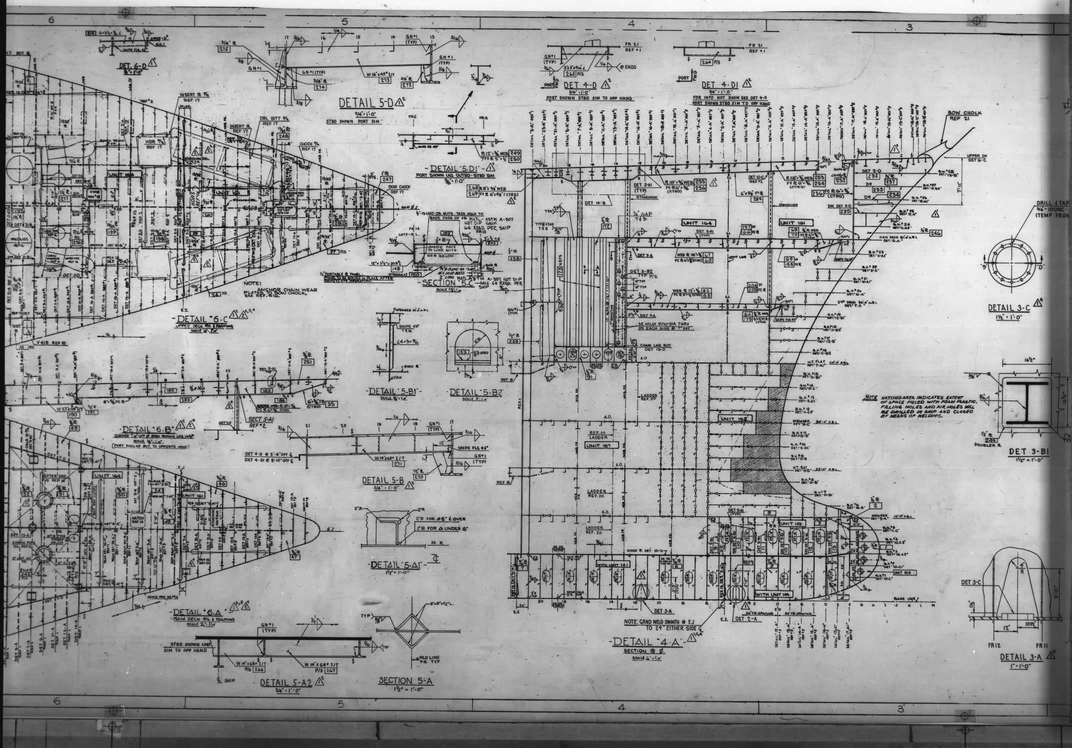
A S I DWG NO C7-1000 11-03-01 REV 2

DISTRIBUTION

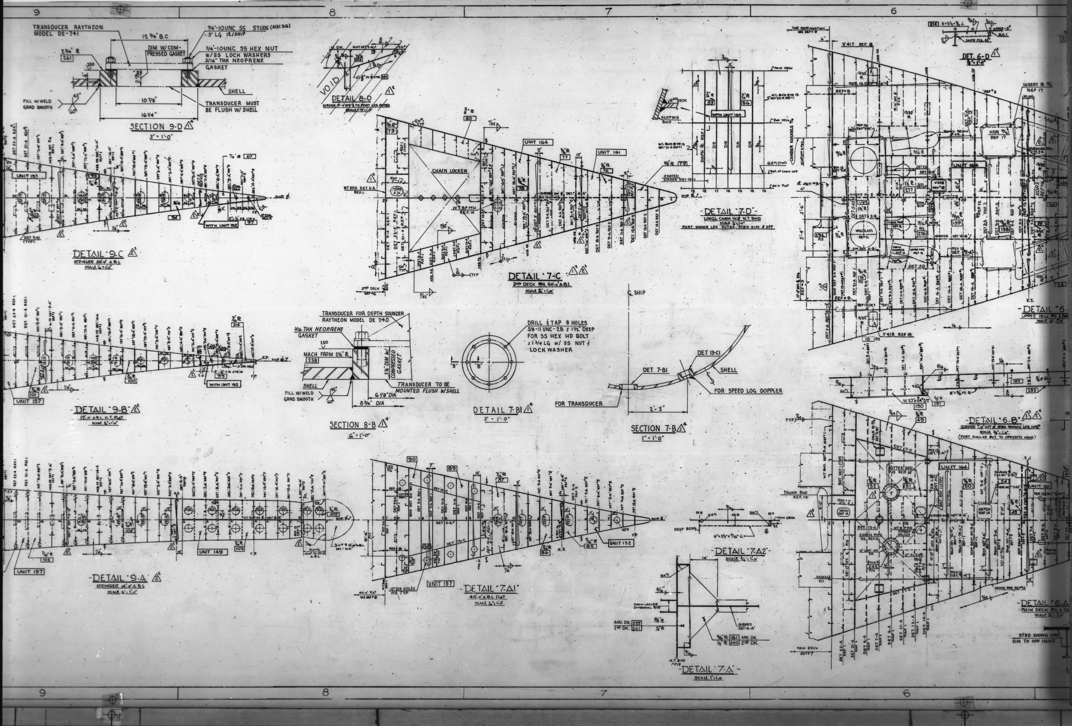
DEPARTMENT: PRODUCTION, PROD PLANNING, MOLD LOFT, ESTIMATING, PROJECT MANAGER, QUALITY CONTROL, COMPUTER APPL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, RESEARCH & DEV, BAYOU BLACK, HARVEY, INDUSTRIAL DIV, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, OWNER (HOME), OWNER (YARD), MARAD (WASH), MARAD (YARD), FRIEDE & GOLDMAN, F&G YARD, TOTAL, DATE OF PRINT ISSUE

C7-1000 11-03-01

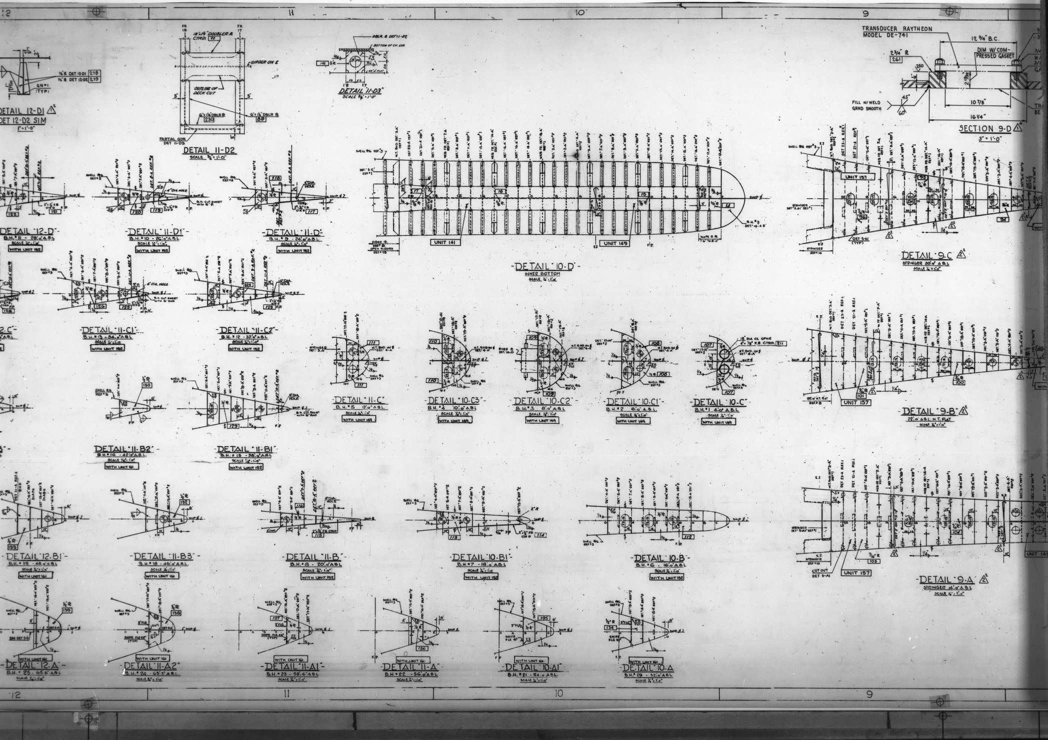
RED. 8X DATE 7-81
MA. NO. H-30 BLDR. NO. 11-03-01
FRAME NO. 1

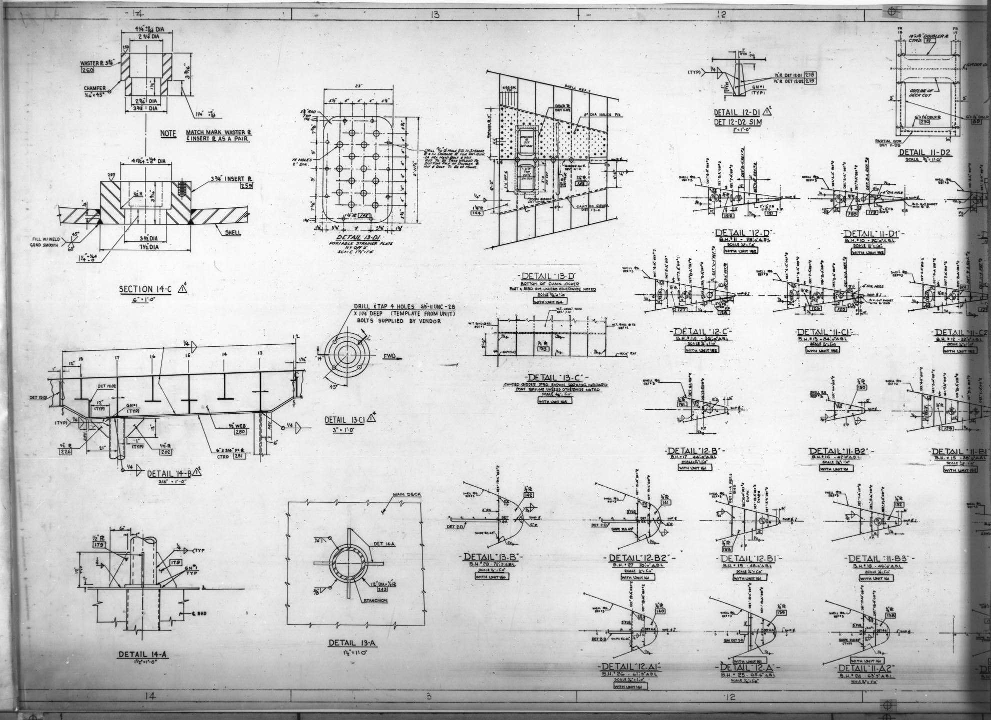


RED. 8X DATE 7-81
MA. NO. H-30 BLDR. NO. 11-03-01
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-30 BLDR. NO. 11-03-01
FRAME NO. 3


DETAIL 12-D1
DET 12-D2 SIM
DETAIL 11-D2
DETAIL 11-D3
TRANSDUCER RAYTHEON MODEL DE-741
SECTION 9-D
DETAIL 12-D
B.H. #11 - 28'-0" A.B.L.
WITH UNIT 152
DETAIL 11-D1
B.H. #10 - 26'-0" A.B.L.
WITH UNIT 152
DETAIL 11-D
B.H. #9 - 24'-0" A.B.L.
WITH UNIT 152
UNIT 141
UNIT 149
DETAIL 10-D
INNER BOTTOM
UNIT 157
DETAIL 9-C
STRINGER 30'-0" A.B.L.
DETAIL 11-C1
B.H. #13 - 34'-0" A.B.L.
WITH UNIT 152
DETAIL 11-C2
B.H. #12 - 32'-0" A.B.L.
WITH UNIT 152
DETAIL 11-C
B.H. #5 - 12'-0" A.B.L.
WITH UNIT 149
DETAIL 10-C3
B.H. #4 - 10'-0" A.B.L.
WITH UNIT 149
DETAIL 10-C2
B.H. #3 - 8'-0" A.B.L.
WITH UNIT 149
DETAIL 10-C1
B.H. #2 - 6'-0" A.B.L.
WITH UNIT 149
DETAIL 10-C
B.H. #1 - 4'-0" A.B.L.
WITH UNIT 149
DETAIL 9-B
22'-0" A.B.L. N.T. FLAT
DETAIL 11-B2
B.H. #16 - 42'-0" A.B.L.
WITH UNIT 161
DETAIL 11-B1
B.H. #15 - 38'-0" A.B.L.
WITH UNIT 152
DETAIL 12-B1
B.H. #19 - 48'-0" A.B.L.
WITH UNIT 161
DETAIL 11-B3
B.H. #18 - 46'-0" A.B.L.
WITH UNIT 161
DETAIL 11-B
B.H. #8 - 20'-0" A.B.L.
WITH UNIT 152
DETAIL 10-B1
B.H. #7 - 18'-0" A.B.L.
WITH UNIT 152
DETAIL 10-B
B.H. #6 - 16'-0" A.B.L.
WITH UNIT 152
DETAIL 9-A
STRINGER 14'-0" A.B.L.
UNIT 149
DETAIL 12-A
B.H. #25 - 65'-6" A.B.L.
WITH UNIT 161
DETAIL 11-A2
B.H. #24 - 63'-3" A.B.L.
WITH UNIT 161
DETAIL 11-A1
B.H. #23 - 58'-6" A.B.L.
WITH UNIT 161
DETAIL 11-A
B.H. #22 - 56'-0" A.B.L.
WITH UNIT 161
DETAIL 10-A1
B.H. #21 - 54'-0" A.B.L.
WITH UNIT 161
DETAIL 10-A
B.H. #20 - 52'-0" A.B.L.
WITH UNIT 161



RED. 8X DATE 7-81
MA. NO. H-30 BLDR. NO. 11-03-01
FRAME NO. 5

RED. 8X DATE 7-81
MA. NO. H-37 BLDR. NO. 11-03-03
FRAME NO. 1

A S I DWG NO C7-1000 11-03-03 REV 3

GENERAL NOTES

SEE SHT NO. 3

REV	NO	TITLE	DRAWING NO
	16	MISC BHDS BLW MN DK FWD	11-05-08
	15	JOINT WELDING DETAILS	29-06-01
	14	SIDE FRAMES	11-03-10
	13	SHELL LONGL & STRINGERS FWD	11-04-03
	12	W.T. BHDS 55 & 58	11-05-02
	11	FLATS 21'-6", 26'-0", 36'-0", FRS 44-58	11-06-07
	10	PAINTING & DECK COVERING SCHEDULE	19-01-01
	9	BOW THRUSTER COMPT & FLATS (7'-6", 22'-0" & 40'-0) FR 21-44.	11-06-06
	8	WEB FRAMES 59-84	11-03-06
	7	O.T./W.T. BHDS 44 & 52 & N.T. SWASH BHD 48	11-05-01
	6	W.T. LONGL BHDS 35'-0" & 40'-0" OFF CL FWD	11-05-06
	5	WEB FRAMES 24-57	11-03-05
	4	SHELL EXPANSION FORWARD	11-01-01
	3	WT BHDS 61, 70, 76 & 85	11-05-03
	2	INNER BOTTOM PLTG & FRAMING FWD	11-02-01
	1	C.V.K., GIRDERS & SHELL LONGL I.B. FWD	11-04-01

REFERENCES

Form C-78-W (12-77)

REVISIONS

REV	SH	DESCRIPTION
		SEE SHT Nº 4

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LETTER 6-9-78	JULY 12 1978.			
1	8-2-78	F&G L-772/594 AUG. 8. 78	SEPT. 13 1978.			
2	10-9-78	F&G L-772/931 10-19-78				
3	10-11-79	F&G 772/2563 Oct. 29 '79	DEC. 4 1979			
4						
5						
6						
7						
8						
9						
10						

NO	DESCRIPTION
1	~~ALL BUTT WELDING PENDING DEVELOPMENT~~

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY M.S. DATE MAY '78
CHECKED BY T.K.R. DATE 5-23-78
APVD M.H. PARKER / W.S. Sichert Jr. 5/24/78
APVD J.J. Murphy 5/24/78 PROJECT MANAGER
APVD VP/CHIEF ENGINEER

FLOORS · FORWARD

SIZE C A S I DWG NO C7-1000 11-03-03 REV 3
SCALE AS NOTED SH NO 1 OF 34

PRINT DISTRIBUTION

DEPARTMENT	PREL.	0	1	2	3
PRODUCTION		18	18	18	29
PROD. PLANNING					1
MOLD LOFT		5	5	5	5
ESTIMATING					
PROJECT MANAGER		1	1	1	1
QUALITY CONTROL					
COMPUTER APPLS.					
ELECTRICAL					
ENGR. STANDARDS					
FILES & RECORDS		1	1	1	1
HULL		2	2	2	1
HULL COMPOSITE		1	1	1	1
DESIGN		2	1	1	1
OUTFITTING		1	1	1	1
STL. TAKE OFF		1	1	1	1
H. V. A. C.					
MATERIAL REQN.		1	1	1	1
MECH. DESIGN					
MECH. DEVELOPMENT		1	1	1	
MECH. COMPOSITE		2	1	1	1
RESEARCH & DEV.		1	1	1	
BAYOU BLACK					
HARVEY					
INDUSTRIAL DIV.					
SERVICE FOUNDRY					
JOINER CONTRACTOR					
ADMEASURER					
F & G		3	3	3	3
WATERMAN		1	1	1	1
MARAD (Y)		1	1	1	1
A.B.S. (N.Y.)		4	4		4
A.B.S. (Y)				1	
U.S.C.G. (N.O.)		2	2		2
U.S.C.G. (Y)				1	
B. LINDSEY					1
F & D (Y)					1
MARAD (W)					1
Sig Schaefer					1
PARTIAL ISSUE	#1		46	42	59
DATE OF PRINT ISSUE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Form C-PD/IX-C (10/76)

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SHT. NO.	TITLE
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2	PRINT DISTRIBUTION & INDEX
3	GENERAL NOTES
4	REVISIONS
5	DETAILS
6	DETAILS
7	N.T. FLRS @ FRS 67, 68 & 69
8	N.T. FLRS @ FRS 65 & 66
9	N.T. FLRS @ FRS 63 & 64
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16	PARTIAL FLRS 58.2, 58.3, 58.5 & 59.1
17	W.T. & N.T. FLR 58.4 & N.T. FLR @ FR 59
18	PARTIAL FLRS 57.2, 57.3, 57.4 & 58.1
19	PARTIAL FLRS 56.2, 56.3, 56.4 & 57.1
20	N.T. FLR @ FR 57 & W.T. FLR @ FR 58
21	PARTIAL FLRS 55.2, 55.3, 55.4 & 56.1
22	W.T. FLR @ FR 55 & N.T. FLR @ FR 56
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26	PARTIAL FLRS 51.2, 52.1, 52.2 & O.T. FLR @ FR 52
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31	N.T. FLR @ FRS 45 & 46, PARTIAL FLRS 44.1, 44.2, 45.1 & 45.2
32	N.T. FLRS @ FRS 40, 41, 42 & 43 and O.T. FLR @ FR 44
33	N.T. FLRS @ FRS 27, 28, 29, 30, 31 & 32
34	N.T. FLRS @ FRS 22, 23, 24, 25 & 26

SIZE C REVISION A.S.I. DWG. NO. C7-1000 11-03-03 SH. NO. 2

RED. 8X DATE 7-81
MA. NO. H-37 BLDR. NO. 11-03-03
FRAME NO. 2

GENERAL NOTES

1. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES & REF #15.
2. ALL SCALLOPS TO BE 2" RAD. UNLESS OTHERWISE NOTED.
3. SNIPES REFERRED TO THIS NOTE ARE TO BE 7/16" X 7/16" AND SEAL WELDED AFTER FABRICATION.
4. MOLDED LINE OF ALL FLOORS IS THE SIDE OF THE PLTG TOWARD MIDSHIPS.
5. MOLDED LINE OF THE INNER BOTTOM IS THE UNDERSIDE OF THE PLTG WHICH IS TO BE FLUSH.
6. FRAME SPACING IS 28" FWD FR 44 AND 7'-4" BETWEEN FRS 44 & 52. FOR FRAME SPACING AFT OF FR 52 SEE REF #1.
7. FOR PAINTING AND SURFACE PREPARATION SEE REF #10.

LAST PIECE MARK USED ON THIS DWG IS 690 ON DET 11-B

GENERAL NOTES

SIZE	REVISION	A.S.I. DWG. NO.	
C	3	C7-1000	11-03-03
			SHT. NO. 3

Form C-GN-C (10/76)

REVISIONS

REV.	SHT.	DESCRIPTION

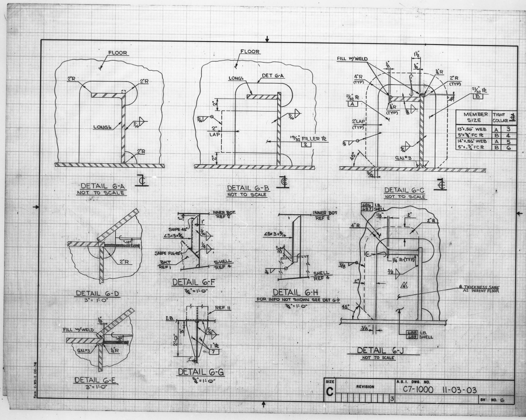
Form C-RV-C (10/76)

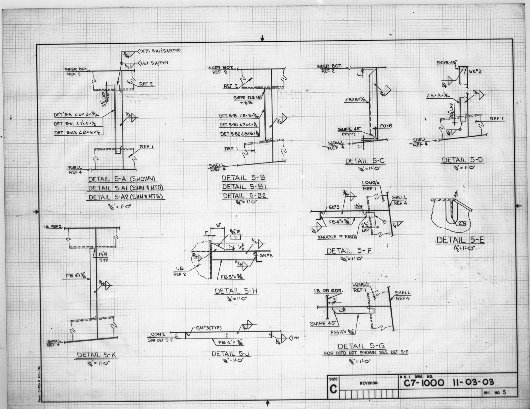
REVISIONS

REV.	SHT.	DESCRIPTION
1	7, 9, 11, 13	1. DETAILS 7-A, 9-B, 11-A, 13-B, 13-C :- DELETED REQ. FOR SLOT & FILLER PL. (DET 6-B) AT I. BTM. LONGL 33'-3" OFF ℄ P/S.
	13.	2. DET 13-C. PC MK 200 REF. TO DET 5-B.
	13	3. DET 13-D. FILLER ℄ AT I. BTM LONGL 33'-3" OFF ℄ REF. TO DET 6-B PC MK 211 REF TO DET 5-B. THESE ITEMS INCORPORATE REV. NOTICE H-54. R.B.
2	7,9,10, 17,20,22 24,25,26 27,31,32	1. RELOCATED & INCREASED SIZES OF OPENINGS IN FLOORS TO SUIT MECHANICAL PIPING. – DETAILS 7-A, 7-B, 9-A, 10-C, 17-A, 17-B, 20-B, 22-A, 24-A, 24-B, 25-A, 25-B, 25-C, 25-D, 26-A, 26-B, 26-D, 27-A, 31-E, 31-F, 32-B REVISED TO SUIT. ADDED PC. MK. 685 TO SUIT B.G.
3	17	1. DET 17-B: ACCESS OPNG BETW LONG #3 & #4 RELOCATED FROM 3'-8" TO 3'-6" BELOW INNERBOTTOM TO CLEAR PIPE. THIS INCORP REV NOTICE NO H-174.
	17	2. DET 17-A & 17-B: RELOCATED A.O. BETW LONG #4 & #5 FROM 3'-8" TO 3'-11" BELOW I.B. THIS INCORP REV NOTICE NO H-172.
	6,17,20, 22,24, 25,26, 27	3. REVISED THE FOLLOWING CALLOUTS ON SHELL & INNERBOTTOM COLLARS FROM DET 6-C TO DET 6-J; DET 17-A @ L #5, DET 17-B @ L #4 & 5, DET 20-B, 22-A, 24-A, 24-B, 25-A, 25-B, 25-C, 25-D, 26-A, 26-B, 26-D, & 27-A @ LONG #1 & 2. ADDED DET 6-J TO SUIT. THIS INCORP REV NOTICE NO H-166.
		4. DET 17-B: ADDED 15"x23" A.O. BETW L-1 & L-2 @ 4'-6" BELOW I.B. DELETED COLLARS @ L-1 & L-2. ADDED RAD SCALLOPS IN 4 CORNERS OF PC NO 298. THIS INCORP REV NOTICE NO H-430. 10-12-79 BR

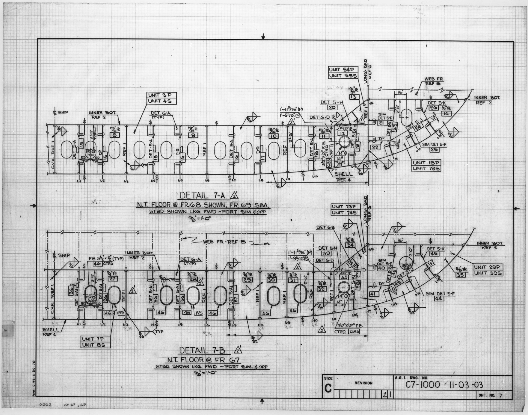
SIZE	A.S.I. DWG. NO.	
C	C7-1000	11-03-03
		SHT. NO. 4

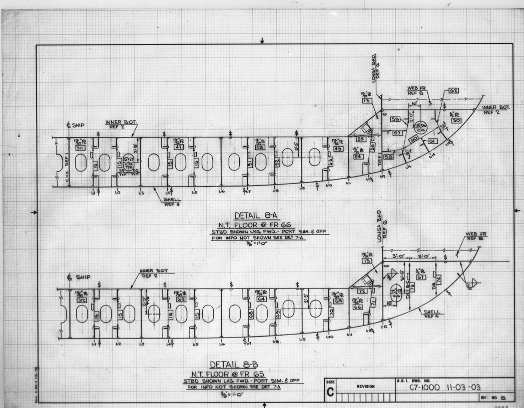
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MA. NO. H-37 BLDR. NO. 11-03-03
FRAME NO. 3



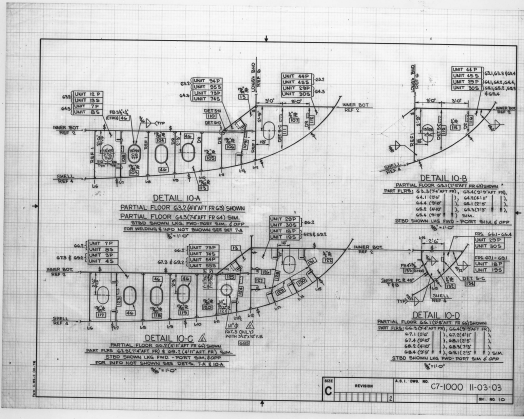


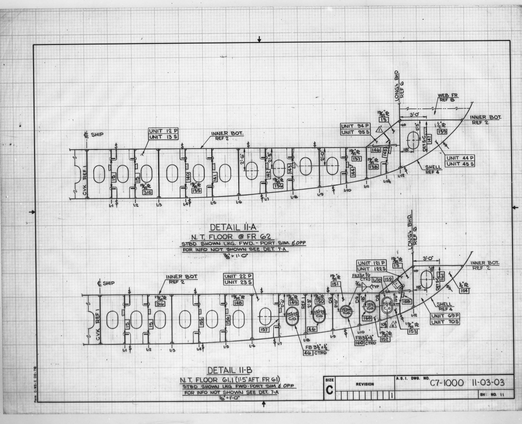
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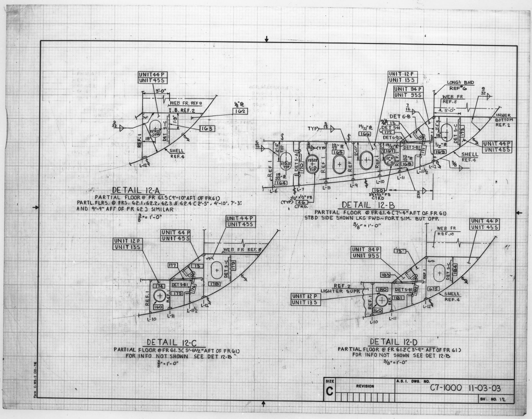


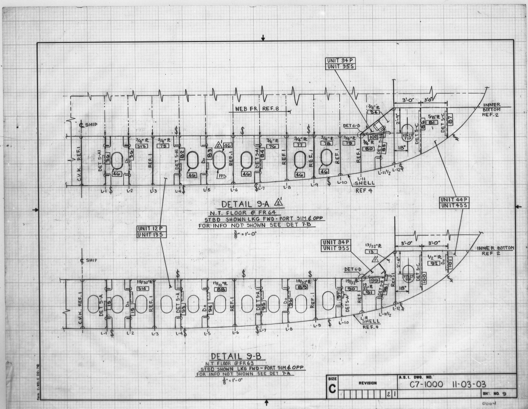
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FRAME NO. 5



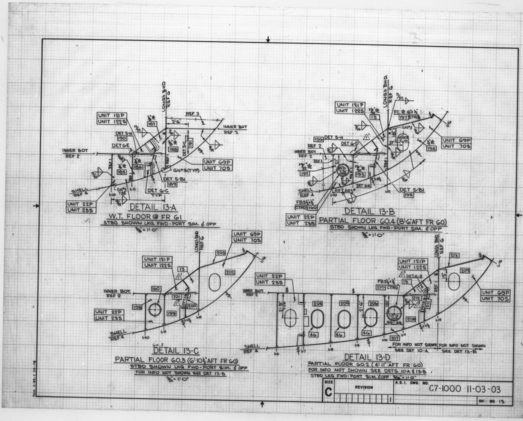


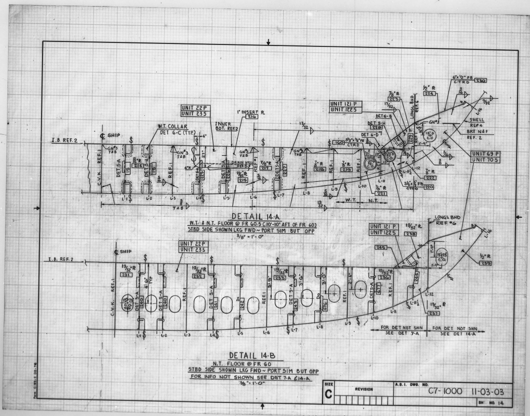
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FRAME NO. 6



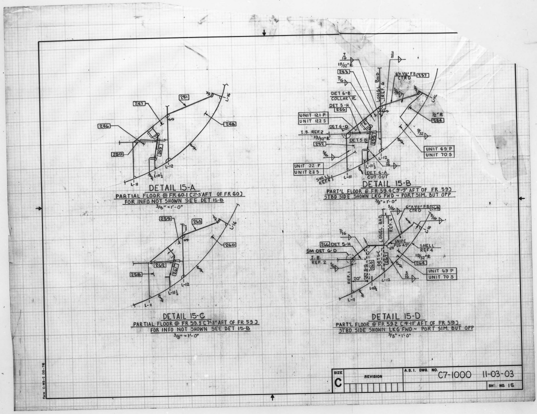


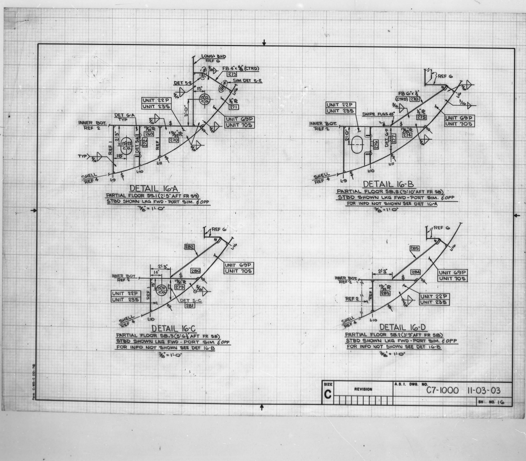
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FRAME NO. 7



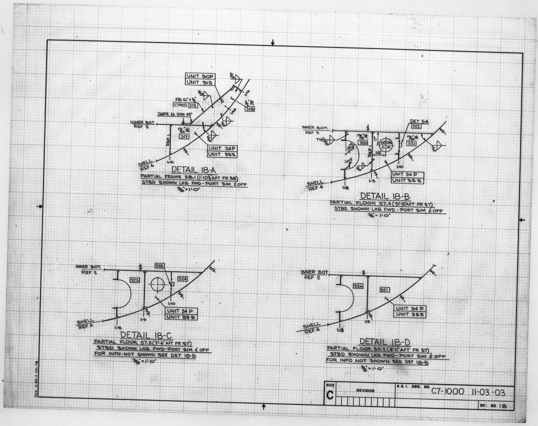


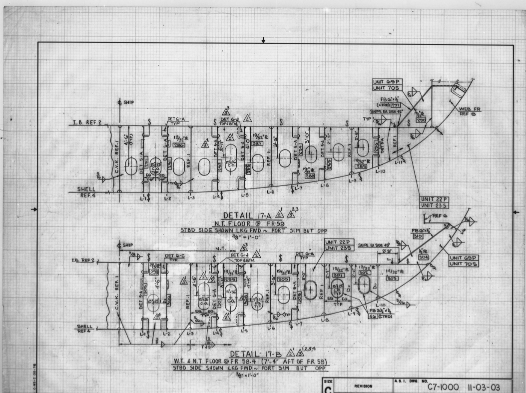
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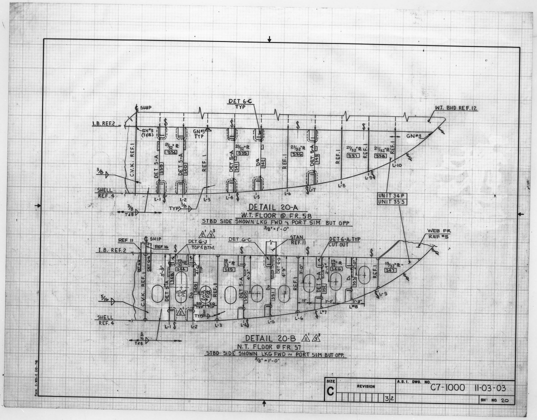


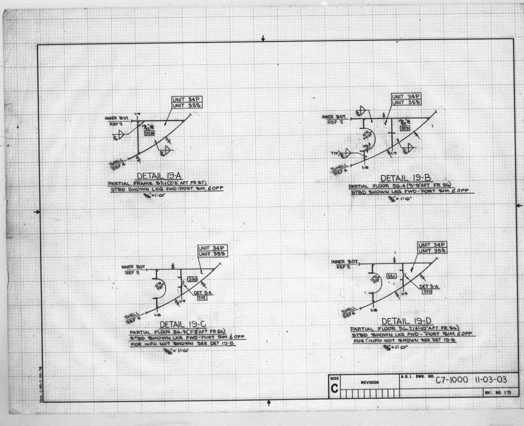
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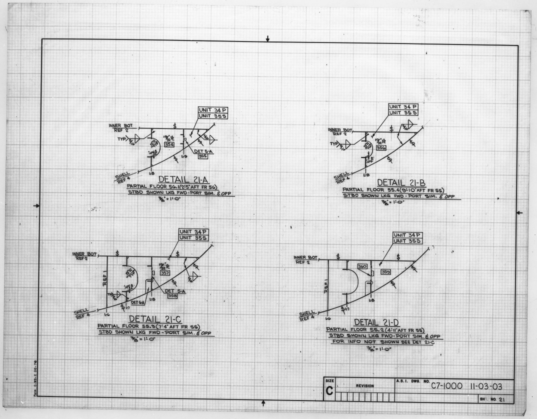


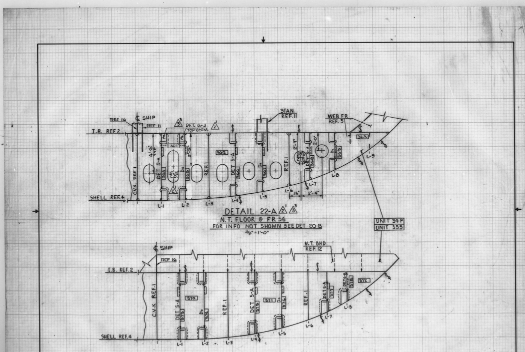
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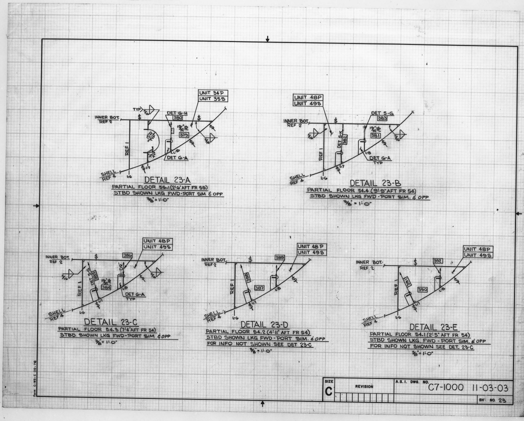


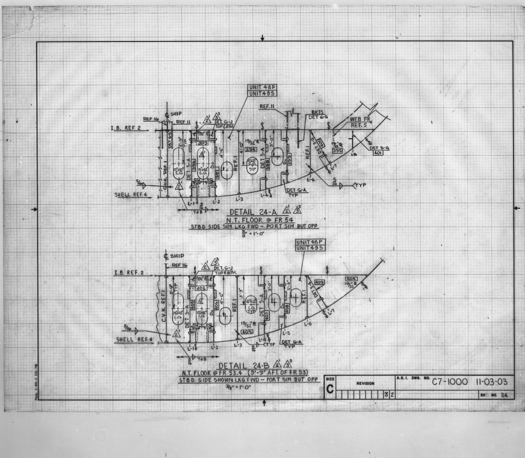
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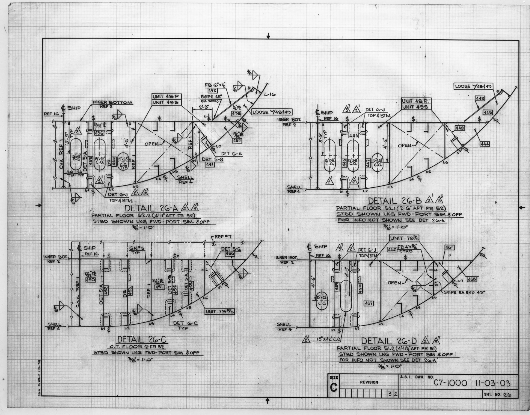


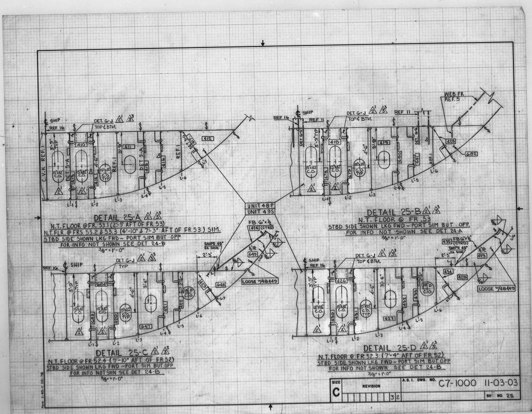
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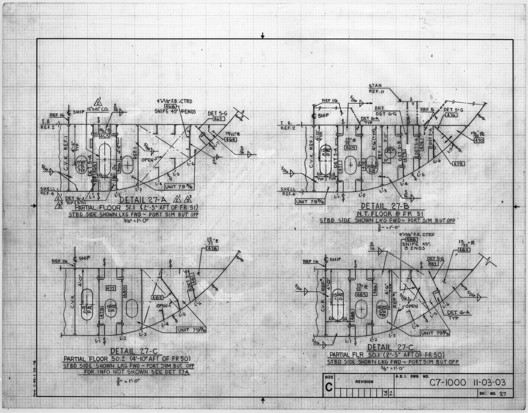


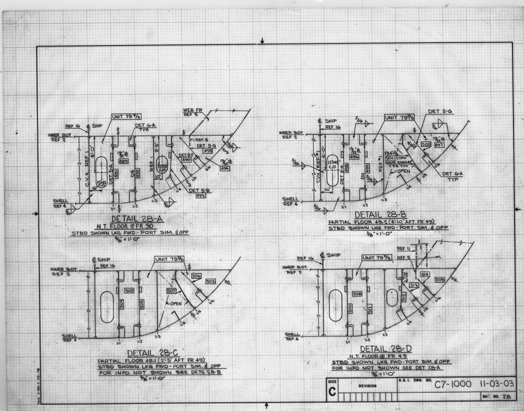
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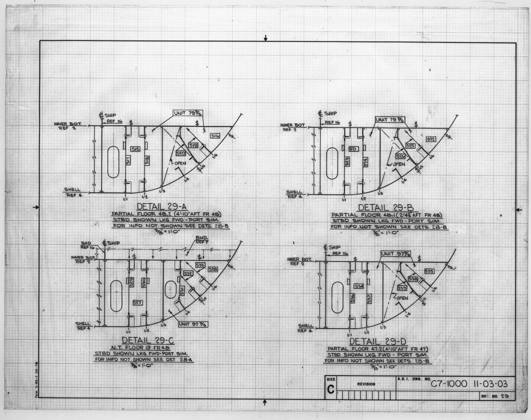


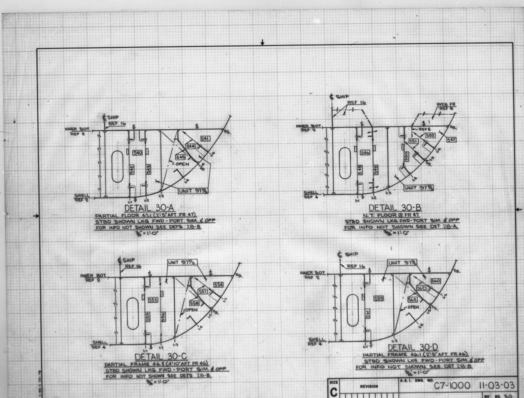
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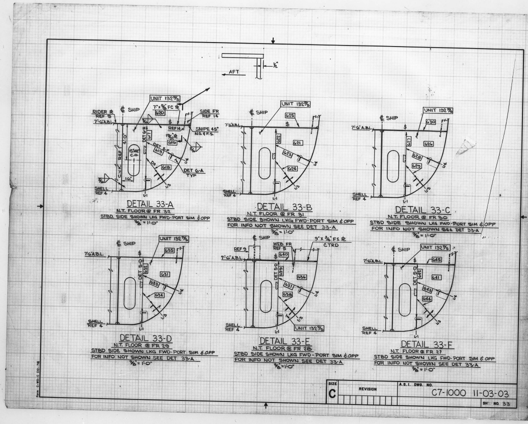


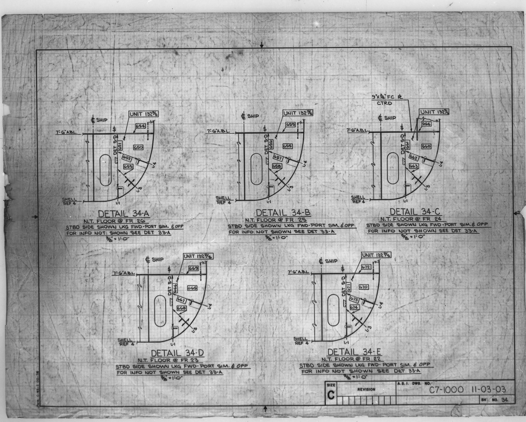
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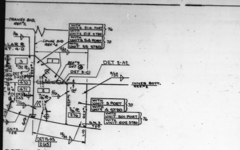




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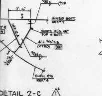


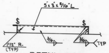




DETAIL 2-D
...LOOR AT FR 70 & 76
...SHOWN LKG. AFT – PORT SIM. TO OPP HAND
...SHOWN LKG. FWD – STBD SIM. TO OPP HAND 3 (1,2)
3/8" = 1'-0"

FR 70.1 THRU 72.4 WITH UNIT 510P / WITH UNIT 511S
FR 69.3 & 69.4 WITH UNIT 15-1(P) / WITH UNIT 15-1(S)
FR 76.1 THRU 78.4 WITH UNIT 16-1(P) / WITH UNIT 15-1(S)





DETAIL 2-C1
— 3/4" = 1'-0"

DETAIL 2-C (1, 2)
...L FLOOR AT FR 69.3 & 69.4
...R 70.1, 70.2, 70.4, 71.1, 71.2, 71.3 & 71.4 SIM
...SHOWN LKG FWD ~ STBD SIM TO OPP HAND
...L FLOOR AT FR 72.1
...FR 72.3, 72.4, 73.1, 73.2, 73.4, 74.1, 74.2, 74.3, 74.4, 75.1, 75.3, 76.2, 76.4, 77.1, 77.2, 77.3, 77.4, 78.1, 78.3, 78.4, 75.4 & 76.1
...HOWN LKG AFT ~ PORT SIM. TO OPP HAND.
3/8" = 1'-0"

FLOOR DETAIL NUMBERS

FLOORS, PARTIAL FLOORS (N.T. & W.T.)	DETAIL OR DETAILS
PART. WING FLOOR AT FR 69.3 & 69.4	DETAIL 2-C
N.T. & W.T. FLOOR 17" FWD FR 70	DETAIL 3-D
W.T. FLOOR AT FR. 70	DETAIL 2-D
N.T. FLOOR 17" AFT. FR. 70	DETAIL 14-B
N.T. FLOOR AT FR. 70.3	DETAIL 3-C
N.T. FLOOR AT FR 71 & 72	DETAIL 3-B
N.T. FLOORS AT FR. 72.2	DETAIL 3-C
N.T. FLOOR AT FR. 73	DETAIL 3-A
N.T. FLOOR AT FR. 73.3	DETAIL 3-C
N.T. FLOOR AT FR 74 & 75	DETAIL 3-B
PARTIAL FLOORS (WING) BETW 70.1 & 75.1	DETAIL 2-C
N.T. FLOOR AT FR. 75.2	DETAIL 3-C
N.T. & W.T. FLOOR 17" FWD FR. 76	DETAIL 3-D
W.T. FLOOR AT FR. 76	DETAIL 2-D
N.T. FLOOR 17" AFT. 76	DETAIL 14-B
N.T. FLOOR AT FR. 76.3	DETAIL 3-C
N.T. FLOORS AT FRS. 77 & 78	DETAIL 3-B
N.T. FLOOR AT FR. 78.2	DETAIL 3-C
PARTIAL WING FLOORS BETWEEN FR 75.3 & 78.4	DETAIL 2-C
N.T. FLOOR AT FR. 79	DETAIL 3-A
N.T. FLOOR AT FR. 79.3	DETAILS 5-B & 6-B
N.T. FLOORS AT FRS. 80 & 81 & 83	DETAILS 5-A & 6-A
N.T. FLOOR AT FR. 81.2	DETAILS 5-B & 6-B
N.T. FLOOR AT FR. 82	DETAIL 5-D
PART. WING FLOORS BETW FR 79.1 & 82.2	DETAIL 5-C
N.T. FLOOR AT FR. 82.3	DETAILS 5-B & 6-B
N.T. FLOOR AT FR .84	DETAILS 5-A
PART. WING FLOORS BETW FRS 82.4 & 83.4	DETAIL 5-C2
PART. WING FLOOR FR 84.1	DETAIL 7-D
N.T. FLOOR AT FR. 84.2	DETAIL 5-B
PART. WING FLOORS FR 84.3 & 84.4	DETAIL 7-D1
N.T. & W.T. FLOOR 17" FWD FR. 85	DETAIL 7-C
W.T. FLOOR AT FR. 85	DETAIL 13-C
N.T. FLOOR 17" AFT FR. 85	DETAIL 13-D
O.T. FLOOR AT FR 86	DETAIL 7-B
N.T. FLOOR AT FR. 87	DETAIL 7-A
O.T. FLOOR AT FR. 88	DETAIL 9-D
N.T. FLOOR AT FR 89	DETAIL 9-C
N.T. FLOOR AT FR 90	DETAIL 9-B
DECK BEAM 1'-3" AFT. FR. 90	DETAIL 14-C
N.T. FLOOR AT FR. 91	DETAIL 9-A
N.T. FLOOR AT FR. 92	DETAIL 10-D
N.T. FLOOR AT FR. 93	DETAIL 10-C
N.T. FLOOR AT FR. 94	DETAIL 10-B
N.T. PART. FLR. 2'-6" FWD. FR. 93	DETAIL 10-C1
N.T. FLOOR AT FR. 95	DETAIL 10-A
PART. FLOOR 5'-3" FWD FR. 95	DETAIL 13-C1
PART. FLOOR 3'-6" FWD. FR. 95	DETAIL 13-A2
PART. FLOOR 21" FWD. FR. 95	DETAIL 13-A1
N.T. FLOOR BTW. FRS. 92 & 93	DETAIL 15-D
N.T. FLOOR BTW. FRS. 93 & 94	DETAIL 14-A

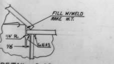
...ER ...E	℄	TIGHT COLLAR DET 4-D 21/32"	7/8"
... WEB	A	221	324
... FC PL	B	249	325
... WEB	A	250	341
... FC PL	B	251	370
... WEB	A	252	372
... FC PL	B	253	374
... 1/2 L	A	254	375
	B	255	376
... WEB	A	497	
... FC PL	B	498	

...L LONG – 14"x .56 WEB W/5"x 3/4" F& PL
...R BOTTOM LONGLS:
INBD LONG BHD – 13" x .56" WEB W/5"x 3/4" F& PL
OUTBD LONG BHD – 13" x .56" WEB W/5 1/2"x 3/4" F& PL
...G BHD STIFFNRS – 8"x 4"x 1/2" L
} AH-36.

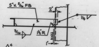
TABLE 2-A (2, 7)

AFT FR	PARTIAL FRAME
2'-5"	71.1, 72.1, 74.1, 75.1, 77.1, 78.1, 80.1, 81.1, 83.1, 84.1
2'-6" (1)	73.1, 79.1, 82.1, 70.1, 76.1
~~4'-4"~~	~~70.2, 76.2~~
4'-10"	71.2, 74.2, 77.2, 80.2, 83.2
4'-11" (1)	72.2, 73.2, 75.2, 78.2, 79.2, 81.2, 82.2, 84.2, 70.2, 76.2
7'-3"	71.3, 74.3, 77.3, 80.3, 83.3
7'-4"	70.3, 72.3, 73.3, 76.3, 78.3, 79.3, 81.3, 82.3, 69.3, 75.3
~~7'-11"~~ (1)	~~69.3, 75.3~~
9'-9"	71.4, 72.4, 74.4, 77.4, 78.4, 80.4, 81.4, 83.4, 69.4, 75.4
9'-10"	70.4, 73.4, 76.4, 79.4, 82.4
6'-8 1/2"	84.3
8'-6"	84.4

TABLE 2-A1 (1)



DETAIL 2-A2
— 3" = 1'-0" —



DETAIL 2-A3 (1, 4)
— 3/4" = 1'-0" —

GENERAL NOTES

1. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES & REF 9.
2. ALL SCALLOPS TO BE 2" RAD. UNLESS OTHERWISE NOTED.
3. SNIPES REFERRED TO THIS NOTE ARE TO BE 7/16" x 7/16" & SEAL WELDED AFTER FABRICATION.
4. MOLDED LINE OF ALL FLOORS IS THE SIDE OF THE PLATING TOWARD MIDSHIPS.
5. SEE TABLE 2-A1 FOR RELATIONSHIP OF PARTIAL FRAMES TO FRAMES.
6. SEE REF 10 FOR PAINTING & SURFACE PREPARATION.
7. MOLDED LINE OF THE INNER BOTTOM IS THE UNDERSIDE OF THE PLATING WHICH IS TO BE FLUSH.
8. THE LAST P& N° USED ON THIS DWG. 502 IN DET 4-B2.
9. P& N°S NOT USED ON THIS DWG: 263, 264, 287, 288, 289, 290, 383, 384, 385.

REVISIONS (CONT'D)

REV	ZONE	DESCRIPTION
3 CONT'D	11	3. DET. 11-D: DELETED KNU & END LAP OF FB STIFF. 1 1/2" RAD WAS 2". R.B.
4	3	1. DET. 3-A:- ADDED 3 1/2" x 1/2" F.B. TO 15" x 23" A.O. BETW L#4 & L#5. THIS INCORP. REV. NOT. H-192.
	7	2. DET. 7-D & 7-D1:- INCREASED 15" DIA. HOLES, OUTBD. OF LONGL BHD, TO 18" DIA. THIS INCORP. REV. NOT. H-211.
	9,10	3. DET. 10-C & 10-C1:- ADDED 1" DIA. PINS @ 31" & 6'-8" OFF ℄ P/S. ADDED DET. 10-B1 & P& N° 11. THIS INCORP. REV. NOT. H-241.
	10,11	4. DET. 10-D:- ADDED 15" x 23" A.O. BETW L#7 & 8 STBD. ADDED 2" R. CUT-OUTS IN 4 CORNERS. ITEM 4 INCORP. REV. NOT. H-335.
	4,7	5. DET. 7-A:- REVISED PORT SIDE OF FR. 87 BETW CVK & LONGL 3. ADDED DET. 4-B2 & P& N°S 500 TO 502 TO SUIT. THIS INCORP. DWG. C7-1000 SKETCH #H-35 & IS A PART OF CHG. ORDER #15. BG CKD
5	7,13	1. DET. 7-C: ACCESS OPNG BETW L-11 & L-12 REVISED FROM 15" DIA. TO 15" x 18" FLAT OVAL 2'-5 1/2" BELOW I.B. TO CENTER OF OPNG. DET. 13-D: ACCESS OPNG BETW L-11 & L-12 REVISED FROM 15" DIA. TO 15" x 18" FLAT OVAL 5'-11 1/2" ABL TO CENTER OF OPNG. ITEMS 1 & 2 INCORP REV. NOTICE #H-389.
	9	2. DET 9-C: PLATE P& N° 163 BETW C.V.K. & L-1 PORT REVISED FROM 3/4" TO 1" THK. THIS IS DEFECT 60. THIS INCORP REV. NOTICE #H-384.
	3	3. DET. 3-A: ADD 15" x 23" A.O. WITH COAMING REINFORCEMENT ON FR. 73 BETW LONG #5 & #6 PORT. THIS INCORP REV. NOTICE #H-404.

REFERENCES

REV	NO	TITLE	DRAWING NO
	17	FOUNDATION STANDBY DIESEL GENERATOR	11-12-09
	16	MAIN INJECTION SEA SCOOP AND MAIN OVERBOARD DISCHARGE	48-23-04
	15	SEA CHEST S.W. SERVICE	48-23-02
	14	MAIN SEA CHEST	48-23-01
	13	MISC. LONG'L BHDS AFT	11-05-12
	12	MAIN ENGINE & CONDENSER FOUNDATION	11-12-01
	11	FLATS AFT	11-06-08
	10	PAINTING & DECK COVERING SCHEDULE	19-01-01
	9	JOINT WELDING DETAILS	29-06-01
	8	SHELL EXPANSION AFT	11-01-02
	7	BHD'S 90 & 95	11-05-04
	6	WEB FRS 86-94	11-03-07
	5	WEB FRS. 59-84	11-03-06
	4	W.T. LONG'L BHD'S 35'-0" & 40'-0" OFF ℄ AFT	11-05-07
	3	BHD'S 61, 70, 76 & 85	11-05-03
	2	INNER BOTTOM PLATING & FRAMING AFT	11-02-02
	1	C.V.K., GIRDERS & SHELL LONG'L INNERBOTTOM AFT	C7-1000-11-04-02

REVISIONS

REV	ZONE	DESCRIPTION
1	2	1. TABLE 2-A1: ADDED FR 70.1 & 76.1 TO 2'-6" COLUMN; ADDED FR 70.2 & 76.2 TO 4'-11" COLUMN; ADDED FR 69.3 & 75.3 TO 7'-4" COLUMN; ADDED FR 69.4 & 75.4 TO 9'-9" COLUMN; DELETED 4'-4" & 7'-11" COLUMN.
	2	2. DET 2-C: ADDED FR 69.4, 70.1, 75.4 & 76.1 TO TITLE.
	3	3. DET 3-C1: REVISED PLATING THICKNESS FROM 1/2" TO 5/8".
	2, 3, 4	4. DET 2-D, 3-A, 3-B & 3-C: ADDED FB STIFFNRS @ 3'-10" & 6'-2" A.B.L. OUTBD OF 35'-0" BHD. DET 2-A3 & P& N° 470 THRU 477 ADDED TO SUIT.
	3,4 5,6	5. DET 3-A & 5-D: REVISED SIZE OF PLATING AS FOLLOWS. INBD OF LONG BHD FROM 7/8" TO 3/4" PL; OUTBD OF LONG BHD FROM 19/32" TO 5/8". ADDED 3/4" PL & P& N° 480 TO DET 4-B1.
	3,4 14 15	6. DET 3-D & 14-B: REVISED SCANTLINGS OUTBD OF LONG BHD. P& N° 11, 263, 264, 287, 288, 289, 290, 383, 384 & 385 DELETED. P& N° 478, 479, 481, 482 & 483 ADDED.
	8,9	7. DET 9-D: REVISED PLATING THICKNESS FROM 19/32" TO 21/32"
	14	8. DET 14-B: ADDED 15" DIA ACCESS OPNGS. BETW LONG. #10-11 & BETW LONG #11-12.
		9 GEN NOTE #9 ADDED.
	3,5	10. DET 3-A & 5-D: ADDED 15 x 23 OPNGS TO SUIT MECH SECT. ADDED P& N°S 484 THRU 487.
	9	11. DET 9-B: RELOCATED 18" DIA C.O. FROM BETW. L-10 & L-11 TO BETW. L-9 & L-10
	8,9	12. DET 9-B: INDICATED RECESS BETW ℄ & L-4 PORT TO SUIT ROTATION OF STANCHION. ADDED P& N°S 494-496 TO SUIT.
	10,12, 14	13. DET 10-B, 10-C, 10-C1 & 14-A: REVISED INDICATION OF L-1A PORT. REVISED DET 12-B & ADDED P& N°S 489, 490 TO SUIT REF 2.
	10,11	14. DET 10-D: ADDED F.B. AROUND A.O. BETW. ℄ & L-1 P/S. & BETW L-8 & L-9 PORT & INDICATED BKT TO SUIT REF 2. ADDED P& N° 491 TO SUIT.
	15	15. DET 15-C: INDICATED HEADER & BKT TO SUIT REF 2.
	14,15	16. DET 14-B: REVISED UNIT N°S.
	5,11	17. DET 5-C: REVISED STIFF @ 38'-0" & 41'-0" OFF ℄ FOR FR 79.1 ONLY. DET 11-B & P& N°S 492-493 ADDED. BY: P.D.
2	9	1. DET. 9-D: REVISED WELD OF FLOOR TO I.B. & SHELL (WAS 11/32)
	10	2. DET. 10-D1: REVISED THK OF PC. NO. 130 & 131. "ITEMS 1 & 2 INCORPORATES REV. NOTICE #H-19"
	3	3. DET. 3-A: REVISED OPNG. BETWEEN L-7 & L-8 FOR FR 73 (WAS PORT ONLY) "ITEM 3 INCORPORATES REV. NOTICE #H-7
	VAR.	4. DET. 3-C2, 4-C, 5-B2, 11-D, 12-D, 12-C1, 12-D & 13-A: CHANGED LAPS OF STIFFRS TO LONGL. MEMBERS TO 3 1/2".
	4	5. DET. 4-A: REVISED WELD BELOW 38'-0" W.L. ITEMS 4 & 5 INCORPORATE REV. NOTICE H-6.
	3,6	6. DET 3-B, 6-A: DELETED SLOT & FILLER PLT. AT I.B. LONGL 33'-3" OFF ℄ P/S.
	2	7. TABLE 2-A: ADDED MEMBER SIZE 13" x .46" WEB, 4" x 3/4" FB. & ADDED PC. MKS FOR 21/32" COLLAR 497 & 498.
	9	8. DET 9-B: REV. PC MK 159 TO STBD & ADDED PC. No. 499 PORT BET. LONGLS 8 & 9. ITEMS 6, 7, & 8 INCORPORATE REV. NOTICE H-55. T.K.R
3	2	1. DET. 2-D: INDICATED FR 70 LKG AFT & FR 76 LKG FWD.
		2. DETS. 2-D, 3-A, 3-B, 3-C, 3-D, 5-A, 5-D, 6-A, 6-B & 14-B: DELETED CLIPS @ ENDS OF STIFFRS OUTBD OF L-11 & P& N°S 267, 268, 270, 271, 273, 274, 30, 323, 498, 499, 294, 414, 283, 284, 293, 303, 37, 38, 68, 72, 339, 340, 421 & 422. REV. DETS 13-A & 13-A3 TO SUIT.

(CONT'D AT LEFT)

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR L772/10 JAN 27, 1978	MARCH 27 '78			
1	3-23-78	#L-772/124 MAR. 30 '78	MAY 12 '78.			
2	7-21-78	F&G L-772/575 AUG. 3, 1978	AUG. 29, 1978			
3	8-7-78	F&G L-772/620 AUG 14, 1978	SEPT. 13, 1978			
4	4-3-79	F&G. APRIL 26 '79.	JUNE 6. '79.			
5	9/18/80	F&G 10-7-80				
6						
7						
8						
9						
10						

NO	DESCRIPTION

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**
WATERMAN STEAMSHIP CORP — **LASH**
AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY PD DATE JAN '78
CHECKED BY CWD DATE JAN '78
APVD MAC 1-13-78
APVD J. J. Murphy PROJECT MANAGER 1/16/78
APVD VP/CHIEF ENGINEER

FLOORS AFT

SIZE H | A S I DWG NO C7-1000 11-03-04 | REV 5 (3)
SCALE AS NOTED

A S I DWG NO C7-1000 11-03-04 REV 5

DISTRIBUTION

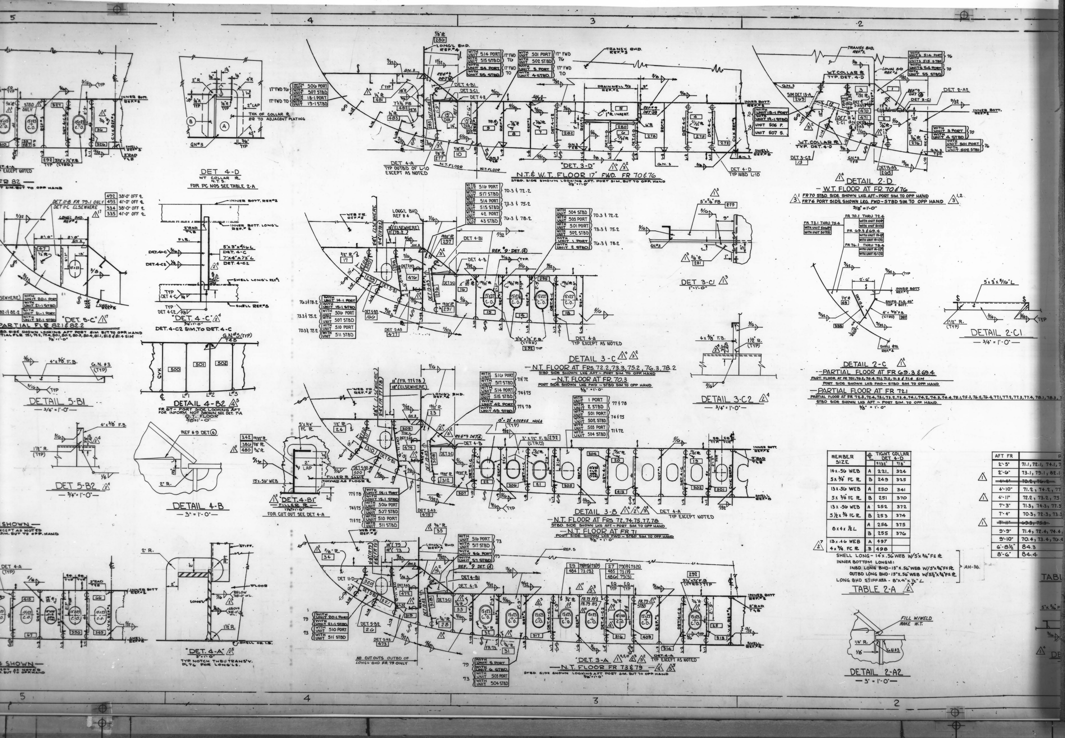
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PRODUCTION		18	18	18	18	26	—
PROD PLANNING							—
MOLD LOFT		5	5	5	5	6	3
ESTIMATING							
PROJECT MANAGER		1	1	1	1	1	1
QUALITY CONTROL							
COMPUTER APPL							
ELECTRICAL		1	1	1	1	1	1
ENGR STANDARDS							
FILES & RECORDS		1	1	1	1	1	1
HULL		2	2	2	2	2	2
HULL COMPOSITE		1	1	1	1		
DESIGN		2	2	1	1	1	1
OUTFITTING		1	1	1	1	1	1
STL TAKE OFF		1	1	1	1	1	1
H V A C		1	1	1	1	1	1
MATERIAL REQN		1	1	1	1	1	1
MECHANICAL		1	1	1	1	1	1
MECH COMPOSITE		2	2	1	1	1	1
RESEARCH & DEV							
BAYOU BLACK							
HARVEY							
INDUSTRIAL DIV							
SERVICE FOUNDRY							
JOINER CONTRACTOR							
ADMEASURER							
ABS (NY)		4	4	4	4	4	
ABS (NO)							
ABS (YARD)							1
USCG (NO)		2		2	2	2	
USCG (YARD)			1				1
USPHS							
OWNER (HOME)		1	1	1	1	1	4
OWNER (YARD)							
MARAD (WASH)							1
MARAD (YARD)		1	1	1	1	1	1
F&G (H)		4	3	3	3	3	3
F+G (Y)						1	1
Sig Solares							1
TOTAL		50	48	48	47	56	28
DATE OF PRINT ISSUE		1/16/78	3/23/78	7/26/78	8/9/78	4/5/79	9/20/80

C7-1000 11-03-04

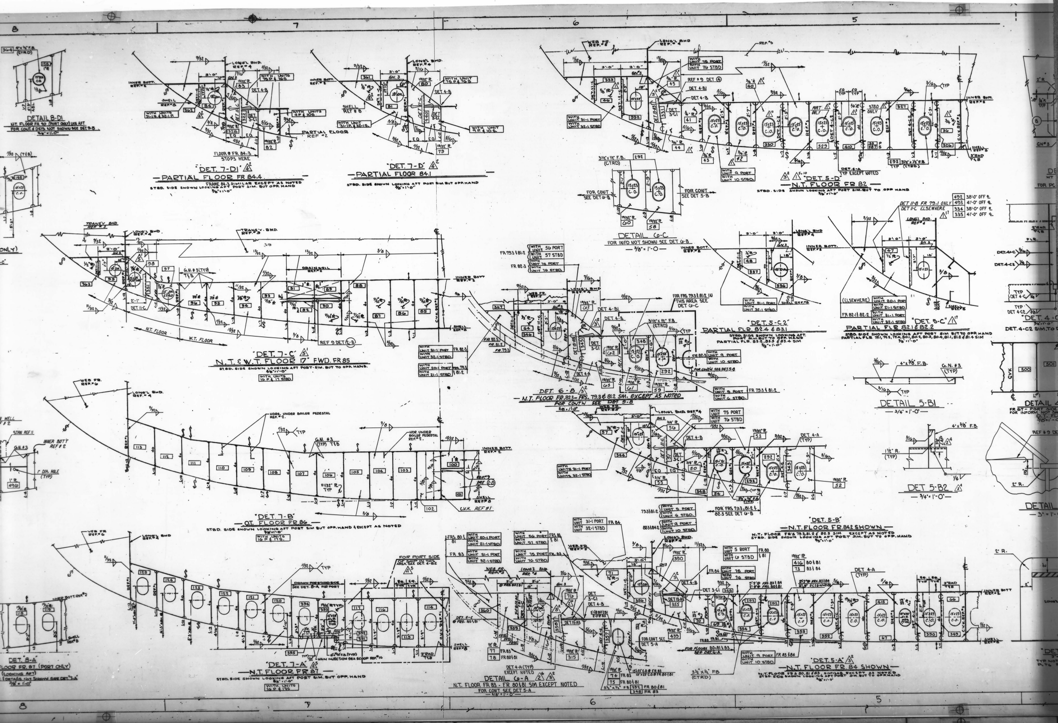
DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
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MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
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H V A C	
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MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
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ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
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OWNER (YARD)	
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MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

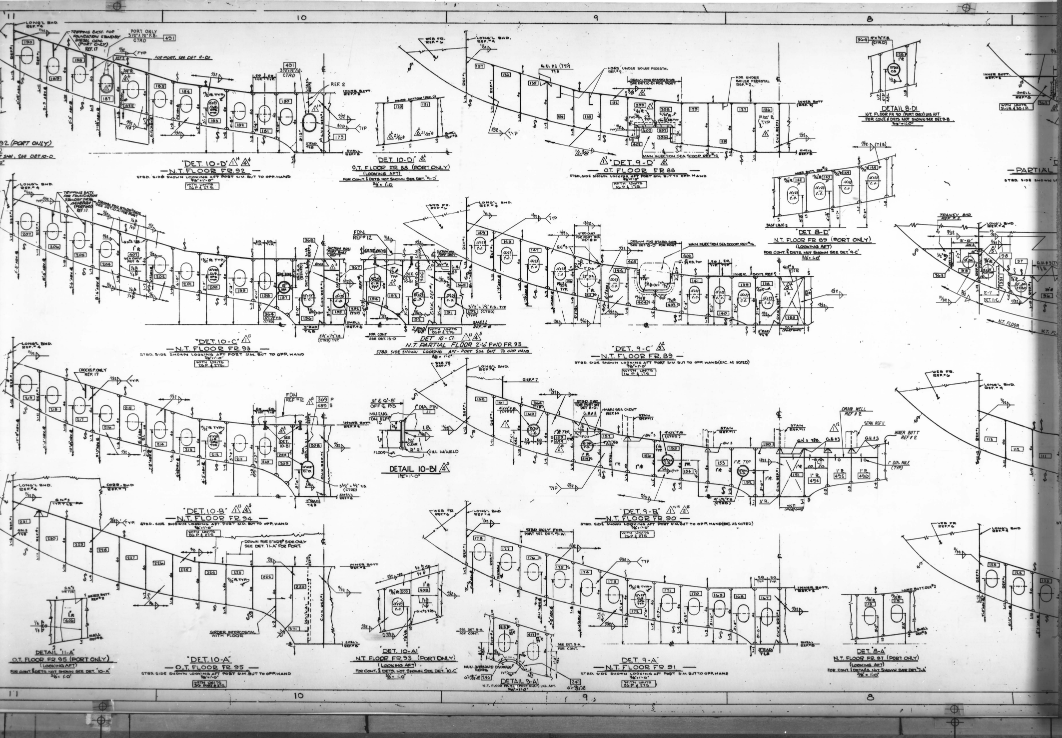
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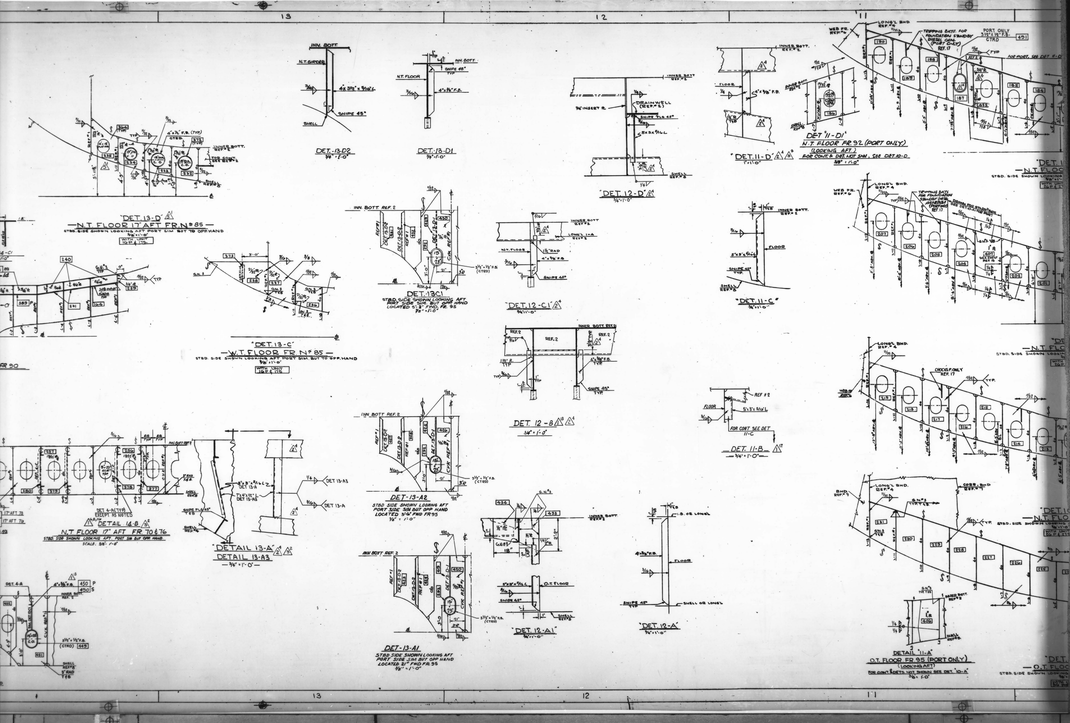
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FRAME NO. 2



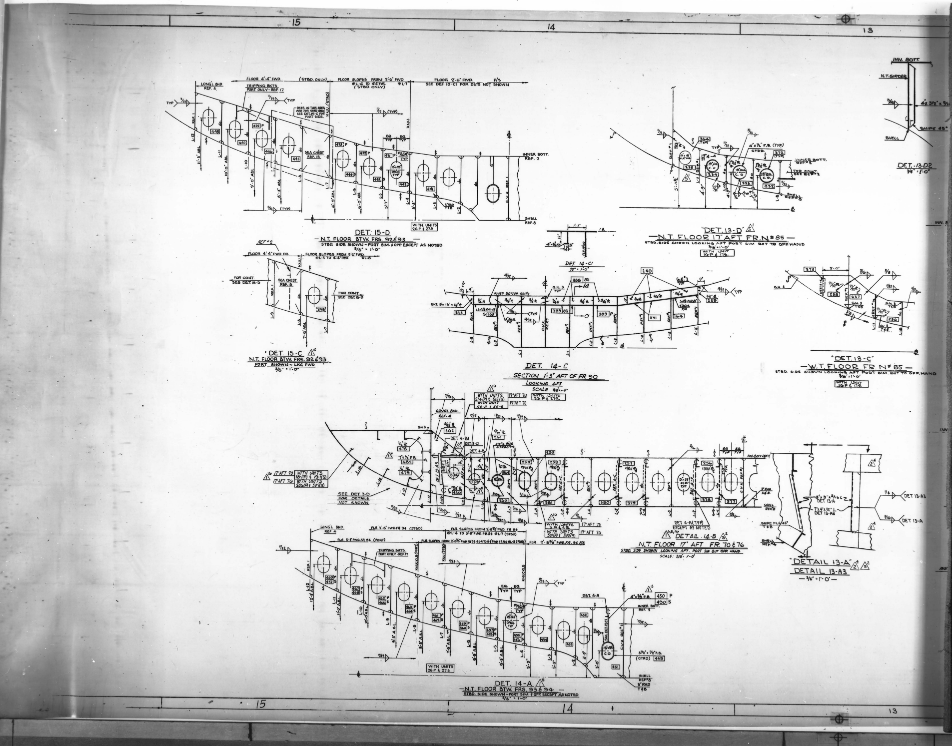
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FRAME NO. 3



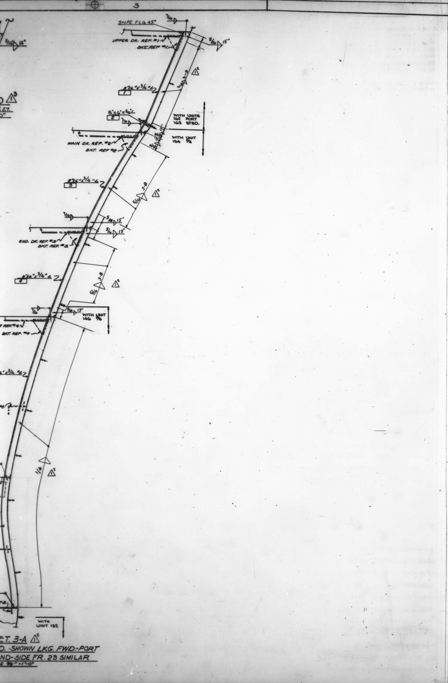
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MA. NO. H-38 BLDR. NO. 11-03-04
FRAME NO. 4



RED. 8X DATE 7-81
MA. NO. H-38 BLDR. NO. 11-03-04
FRAME NO. 5



RED. 8X DATE 7-81
MA. NO. H-38 BLDR. NO. 11-03-04
FRAME NO. 6



GENERAL NOTES

1. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES AND REF #9.
2. SNIPES REFERRED TO THIS NOTE ARE TO BE 7/16" X 7/16" AND SEAL WELDED AFTER FABRICATION.
3. ALL SCALLOPS TO BE 2" RAD. UNLESS OTHERWISE NOTED.
4. WELDS TO BE WRAPPED AT ALL SNIPES AND SCALLOPS.
5. FOR PAINTING AND SURFACE PREPARATION SEE REF #8.
6. MOLD LINE OF SIDE FRAMES IS HEEL OF THE ANGLE.
7. ALL MATERIAL ON THIS DWG IS TO BE A.B.S. GRADE "A" MILD STEEL.
8. LAST PIECE NO USED ON THIS DWG IS 59 ON DET 5-D.

REVISIONS

REV	ZONE	DESCRIPTION
1	6	1. DET. 6-A: ADDED "NOTE" @ SHELL BETWN 2ND DK. & 40'-0" FLAT REFERRING TO DET. 6-C WHICH WAS ADDED TO SUIT REV'D CO_2 ROOM ARRGT. ADDED PC No 57. REVISE QTY. PC No 20. THIS ITEM INC. REV. NOTICE. H-179.
	VAR.	2. DETS. 3-A, 5-A, 6-A, 7-C, 8-A, & 9-C: REVISED FRAME WELDS TO SHELL AS FOLLOWS: ABOVE MAIN DK. 5/16 3-10 TO 5/16 3-9 BELOW MAIN DK. 5/16 3-10 TO 5/16 3-8 3/16 TO 1/4 ITEM 2 INC. REV. NOTICE H-138.
	4,5, 1	3. DET. 5-A :- REVISED UPPER DK. CONN. ADDED DET. 4-D, DET. 5-D, & PC Nos 58-59. RELEASED RESERVATION 1. CWD
2	5,6	1. DET. 6-A :- END CONNECTION SNIPES @ MN. DK. & 2ND. DK. NOTED TO G.N. #2. ITEM 1 INCORP. REV. NOT. H-205.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G L-772/1645 8-18-78	SEPT. 15 '78			
1		F&G L-772/1645 3-2-79	MARCH 6 '79			
2	9-29-80	F&G 10-21-80				
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	~~PENDING DEVELOPMENT OF UPPER DECK BETWEEN FRS. 24 & 28 P/S~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

REFERENCES

REV	NO	TITLE	DRAWING NO
	11	MAIN DECK BULKHEADS	11-07-01
	10	MISC. BHDS. BELOW MAIN DECK	11-05-08
	9	TYPICAL WELDING DETAILS	29-06-01
	8	PAINTING AND DECK COVERING SCHEDULE	19-01-01
	7	SHELL EXPANSION FWD	11-01-01
	6	SHELL LONGLS AND STRINGERS FWD	11-04-03
	5	FLOORS FWD	11-03-03
	4	BOW THRUSTER COMPT. & FLATS (7'-6", 22'-0" & 40'-0") FR. 21-44	11-06-06
	3	SECOND DK.-PLTG. & FRG. - FWD.	11-06-01
	2	MAIN DK. - PLTG. - FWD.	11-06-03
	1	UPPER DK. PLTG. & FRAMING	11-06-09

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

SIDE FRAMES

DRAWN BY: ASL	DATE: JULY '78	
CHECKED BY: CWD	DATE: AUG '78	
APVD: M.H. Parker / per. W.S. Sichert Jr.	Aug. 9, 1978	
APVD: J. J. Murphy, PROJECT MANAGER	8/10/78	
APVD: VP/CHIEF ENGINEER		

SIZE: H — A S I DWG NO: C7-1000-11-03-10 — REV: 2

SCALE: NOTED

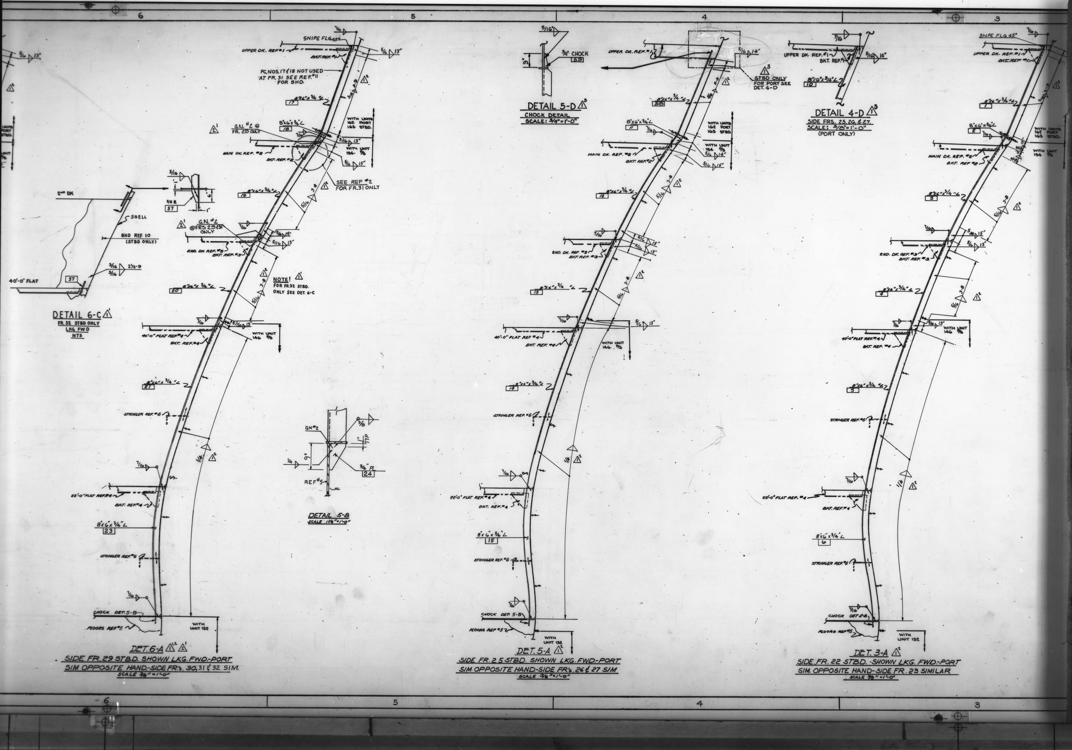
A S I DWG NO C7-1000 11-03-10 — REV 2

DISTRIBUTION

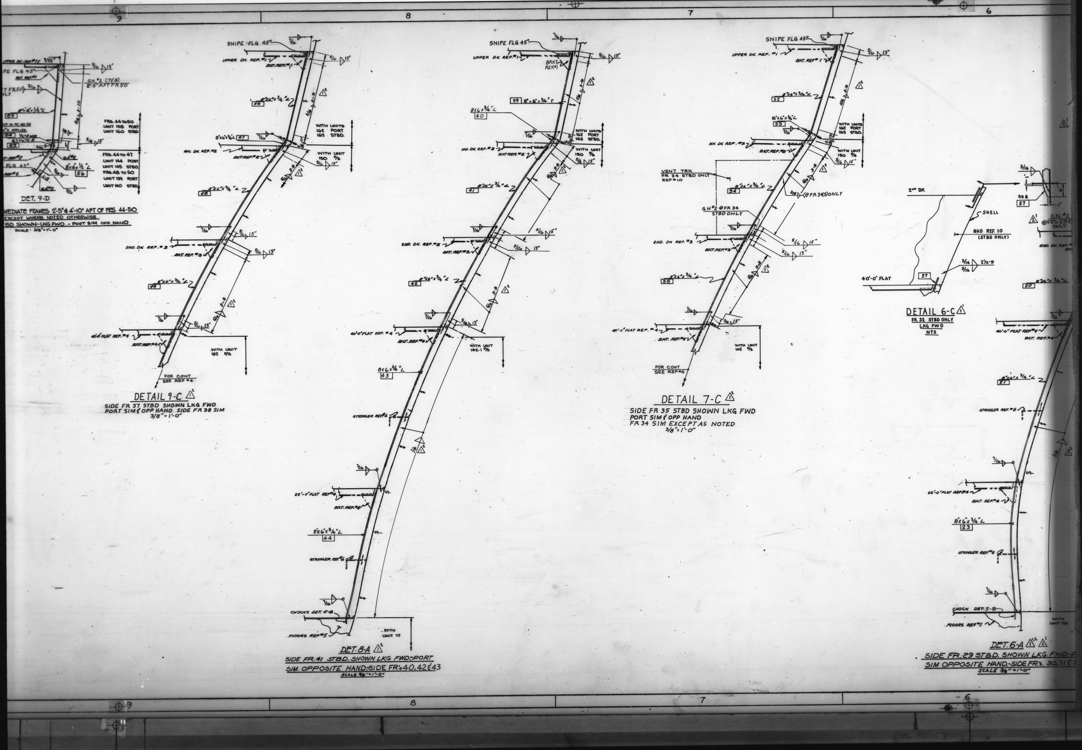
DEPARTMENT	REVISION 0	1	2
PRODUCTION	18	23	–
PROD PLANNING			–
MOLD LOFT	5	6	3
ESTIMATING			
PROJECT MANAGER	1	1	1
QUALITY CONTROL			
COMPUTER APPL			
ELECTRICAL			
ENGR STANDARDS			
FILES & RECORDS	1	1	1
HULL	2	2	1
HULL COMPOSITE	1		
DESIGN	2	1	1
OUTFITTING	1	1	1
STL TAKE OFF	1	1	1
H V A C			
MATERIAL REQN	1	1	1
MECHANICAL	1	1	
MECH COMPOSITE	2	1	1
RESEARCH & DEV			
BAYOU BLACK			
HARVEY			
INDUSTRIAL DIV			
SERVICE FOUNDRY			
JOINER CONTRACTOR			
ADMEASURER			
ABS (NY)	4	4	
ABS (NO)			
ABS (YARD)			1
USCG (NO)	2	2	
USCG (YARD)			1
USPHS			
OWNER (HOME)	1	1	4
OWNER (YARD)			
MARAD (WASH)			1
MARAD (YARD)	1	1	1
FRIEDE & GOLDMAN	3	3	3
F&G (Y)		1	1
Sig SoLARES			1
TOTAL			
DATE OF PRINT ISSUE			

C7-1000 11-03-10

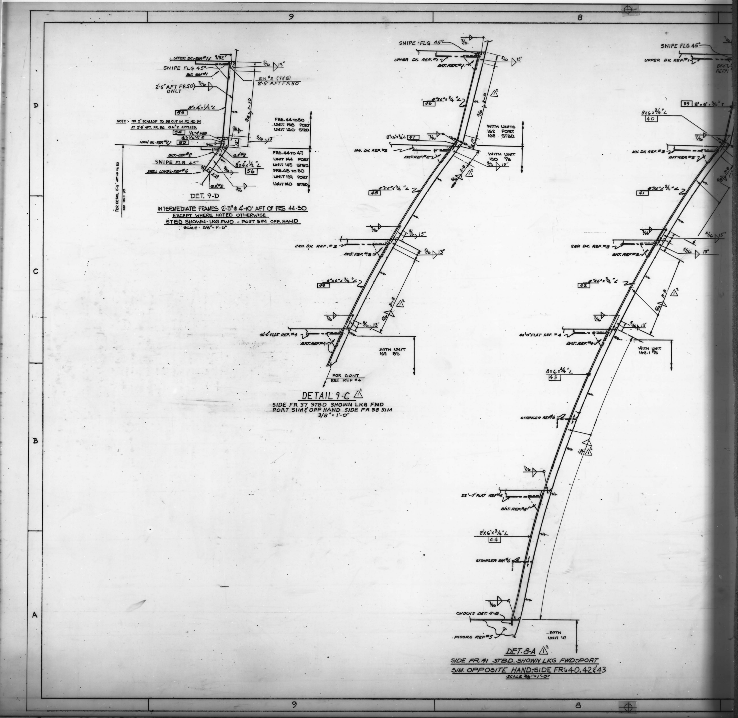
RED. 8X DATE 7-81
MA. NO. H-44 BLDR. NO. 11-03-10
FRAME NO. 1



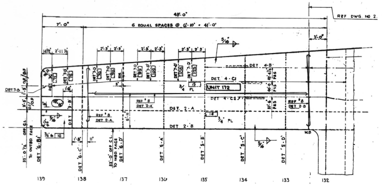
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MA. NO. H-44 BLDR. NO. 11-03-10
FRAME NO. 2



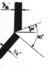
RED. 8X DATE 7-81
MA. NO. H-44 BLDR. NO. 11-03-10
FRAME NO. 3


9
8
D
C
B
A
NOTE: NO 2" SCALLOP TO BE CUT IN PC NO 54 AT 2'-5" AFT. FR 50. G.N. #2 APPLIES.
FRS. 44 TO 50 UNIT 158 PORT UNIT 160 STBD.
FRS. 44 TO 47 UNIT 144 PORT UNIT 145 STBD. FRS. 48 TO 50 UNIT 139 PORT UNIT 140 STBD.
DET. 9-D
INTERMEDIATE FRAMES 2'-5" & 4'-10" AFT OF FRS 44-50
EXCEPT WHERE NOTED OTHERWISE
STBD SHOWN-LKG. FWD. - PORT SIM OPP. HAND
SCALE: 3/8" = 1'-0"
WITH UNITS 162 PORT 163 STBD.
WITH UNIT 150 P/S
WITH UNIT 142 P/S
FOR CONT SEE REF #4
DETAIL 9-C
SIDE FR 37 STBD SHOWN LKG FWD
PORT SIM & OPP HAND SIDE FR 38 SIM
3/8" = 1'-0"
WITH UNIT 142-1 P/S
WITH UNIT 117
DET. 8-A
SIDE FR. 41 STBD. SHOWN LKG FWD.-PORT
SIM. OPPOSITE HAND: SIDE FR's 40, 42 & 43
SCALE 3/8" = 1'-0"

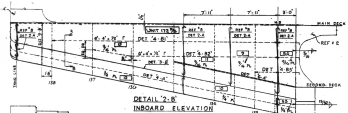
RED. 8X DATE 7-81
MA. NO. H-67 BLDR. NO. 11-06-05
FRAME NO. 1



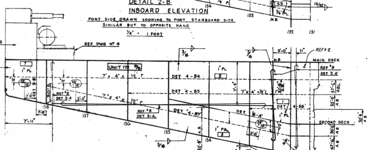
DETAIL '2-C'
PLAN VIEW AT MAIN DECK
PORT SIDE SHOWN. STBD SIDE SIMILAR TO OPP HAND
1/4" = 1 FOOT



DETAIL '3-B'
6" = 1 FOOT



DETAIL '2-B'
INBOARD ELEVATION
PORT SIDE DRAWN LOOKING TO PORT. STARBOARD SIDE SIMILAR BUT TO OPPOSITE HAND
1/4" = 1 FOOT



DETAIL '2-A'
LONGL. BULKHEAD 35'-0 1/2" OFF C.L. (O.F.)
PORT SIDE DRAWN LOOKING TO PORT. STARBOARD SIDE SIMILAR BUT TO OPPOSITE HAND.
1/4" = 1 FOOT

GENERAL NOTES

1. ALL SCALLOPS 2" RAD UNLESS OTHERWISE NOTED.
2. SNIPES TO BE 7/16" X 7/16" AND SEAL WELDED AFTER FABRICATION.
3. FOR PAINTING & SURFACE PREPARATION SEE REF #9
4. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES AND REF # 8.
5. ALL MATERIAL TO BE A.B.S. GRADE "A" EXCEPT OTHERWISE NOTED.
6. LAST PIECE MARK ON DWG. IS 129 ON DET 4-C3.

REVISIONS

REV	ZONE	DESCRIPTION
O		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698-11-06-05 REV 1 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: 1. DET 4-C: REVISED & RELOCATED LONGL'S. 2. DET 6-A: EXTENDED AFT TO FR. 135. 3. REVISED FRAME Nos & MINOR SCANTLINGS. WELDING GENERALLY REVISED TO SUIT.
1	6	1. DET. 6-C & 6-D: DELETED VERTICAL BUTT & PC MKS. 103 & 106. THIS ITEM INC. REV. NOTICE H-186.
	4	2. DET. 4-C: PC Nº 33 & 35 REVISED FROM 9/16" TO 3/4" THICK. THIS INCORP REV. NOTICE #H-301.
	4	3. DET. 4-C3: DELETE PC Nº 125-129. THIS INCORP REV. NOTICE #H-219.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G L-175/87 8-28-78				
1	9/18/80					
2						
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	~~RESERVE ALL BUTT WELDS PENDING DEV. OF WELDING PROCEDURE.~~

REFERENCES

NO	TITLE	DRAWING NO
9	PAINTING & DECK COVERING SCHEDULE	19-01-01
8	WELDING DETAILS	29-06-01
7	SHELL LONGITUDINALS AFT	11-04-04
6	SHELL EXPANSION AFT	11-01-02
5	MOORING ARRANGEMENT & FOUNDATIONS	12-01-01
4	GANTRY CRANE INSTALLATION & DETAILS	17-01-01
3	W.T. LONGITUDINAL BHDS 35'-0" & 40'-0" OFF CL AFT	11-05-07
2	AFT PEAK FRAMING SHT 3	11-03-023
1	AFT PEAK FRAMING SHT 2	11-03-022

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO: **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY: P.D. DATE: JULY, 1978
CHECKED BY: T.K.R. DATE: AUG. 1978
APVD: M.H. PARKER / PER ... 8/11/78
APVD: PROJECT MANAGER 8/15/78
APVD: VP/CHIEF ENGINEER

CRANEWAY EXTENSION

SIZE: H | A S I DWG NO: C7-1000 11-06-05 | REV: 1
SCALE: NOTED | **KEY PLAN**

A S I DWG NO: C7-1000 11-06-05 REV 1

DISTRIBUTION

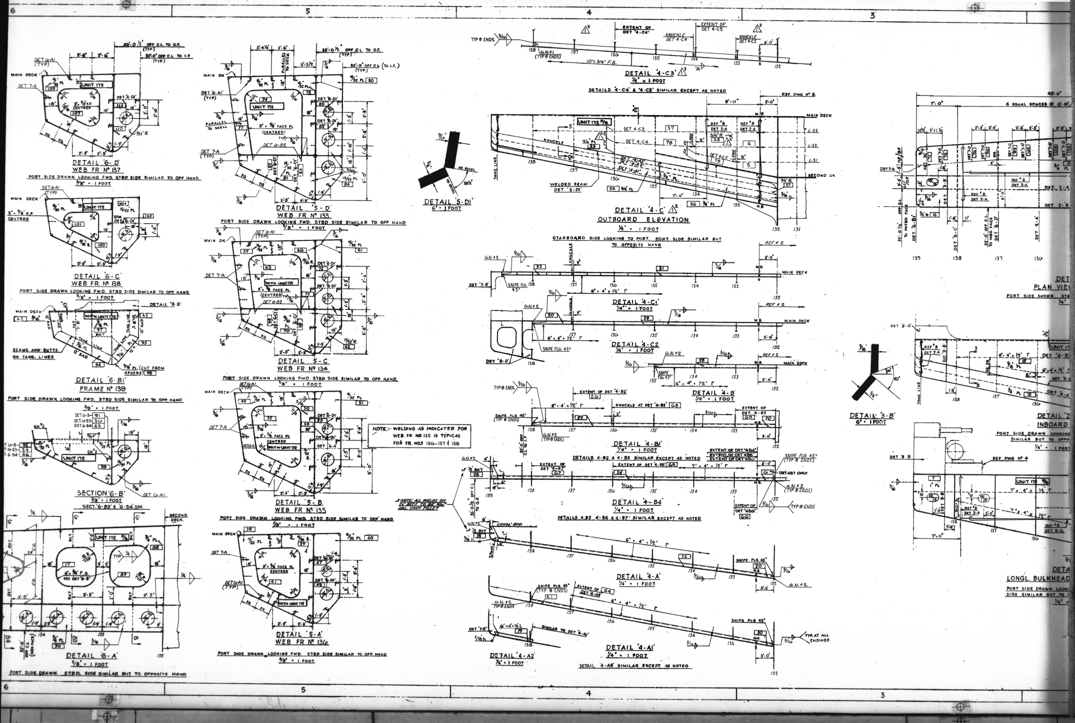
C7-1000 11-06-05

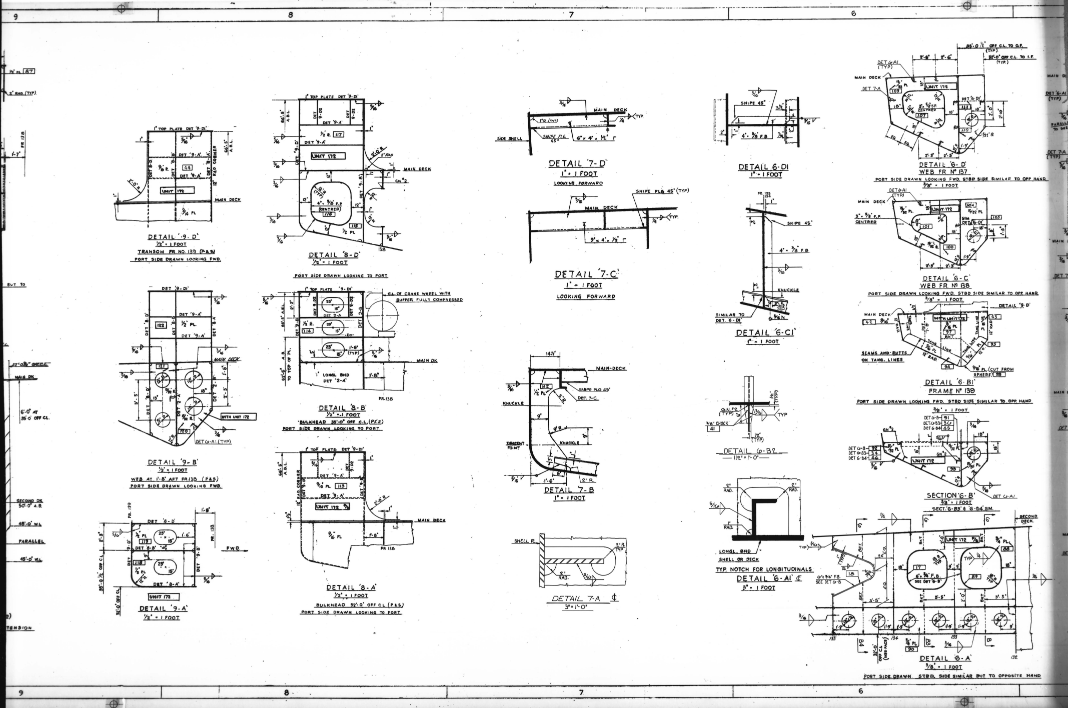
DEPARTMENT
PRODUCTION
PROD PLANNING
MOLD LOFT
ESTIMATING
PROJECT MANAGER
QUALITY CONTROL
COMPUTER APPL
ELECTRICAL
ENGR STANDARDS
FILES & RECORDS
HULL
HULL COMPOSITE
DESIGN
OUTFITTING
STL TAKE OFF
H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
RESEARCH & DEV
BAYOU BLACK
HARVEY
INDUSTRIAL DIV
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
OWNER (HOME)
OWNER (YARD)
MARAD (WASH)
MARAD (YARD)
TOTAL
DATE OF PRINT ISSUE

DISTRIBUTION

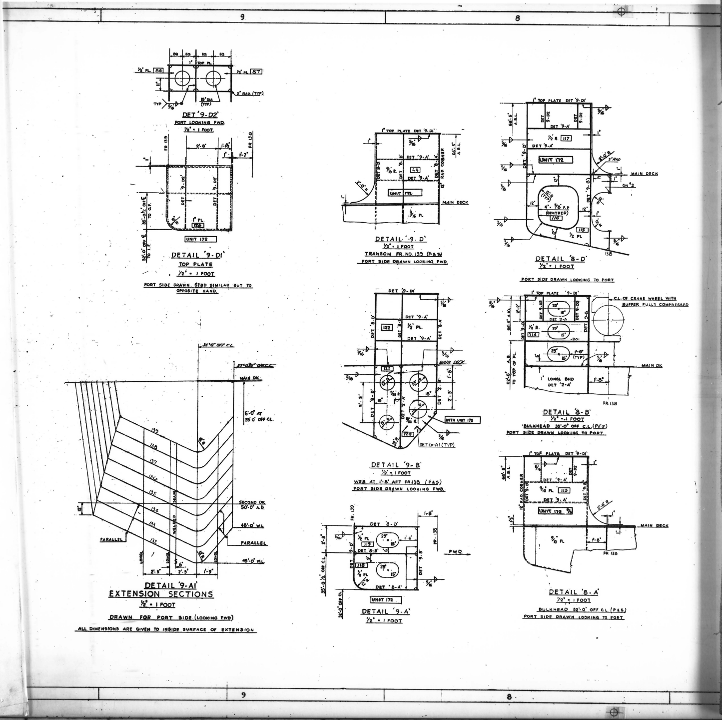
C7-1000 11-06-05

DEPARTMENT
PRODUCTION
PROD PLANNING
MOLD LOFT
ESTIMATING
PROJECT MANAGER
QUALITY CONTROL
COMPUTER APPL
ELECTRICAL
ENGR STANDARDS
FILES & RECORDS
HULL
HULL COMPOSITE
DESIGN
OUTFITTING
STL TAKE OFF
H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
RESEARCH & DEV
BAYOU BLACK
HARVEY
INDUSTRIAL DIV
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
OWNER (HOME)
OWNER (YARD)
MARAD (WASH)
MARAD (YARD)
FRIEDE & GOLDMAN
F. G. (YARD)
Sig. Solaries
TOTAL
DATE OF PRINT ISSUE

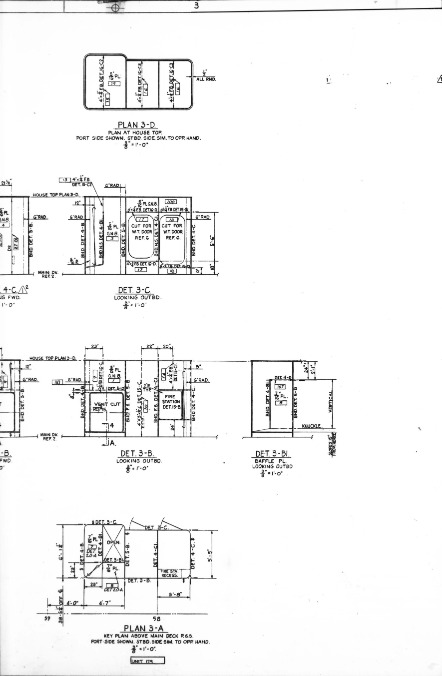

DETAIL '6-D'
WEB FR Nº 137
PORT SIDE DRAWN LOOKING FWD. STBD SIDE SIMILAR TO OPP. HAND
3/8" = 1 FOOT
DETAIL '6-C'
WEB FR. Nº 138
DETAIL '6-B1'
FRAME Nº 139
SECTION '6-B'
DETAIL '6-A'
PORT SIDE DRAWN. STBD. SIDE SIMILAR BUT TO OPPOSITE HAND
DETAIL '5-D'
WEB FR Nº 133
DETAIL '5-C'
WEB FR Nº 134
DETAIL '5-B'
WEB FR Nº 135
DETAIL '5-A'
WEB FR Nº 136
DETAIL '5-D1'
6" = 1 FOOT
NOTE:- WELDING AS INDICATED FOR WEB FR. NO. 135 IS TYPICAL FOR FR. NOS 136, 137 & 138
DETAIL '4-C3'
1/4" = 1 FOOT
DETAILS '4-C4' & '4-C5' SIMILAR EXCEPT AS NOTED
DETAIL '4-C'
OUTBOARD ELEVATION
1/4" = 1 FOOT
STARBOARD SIDE LOOKING TO PORT. PORT SIDE SIMILAR BUT TO OPPOSITE HAND
DETAIL '4-C1'
DETAIL '4-C2'
DETAIL '4-B'
DETAIL '4-B1'
DETAILS 4-B2 & 4-B3 SIMILAR EXCEPT AS NOTED
DETAIL '4-B4'
DETAILS 4-B5, 4-B6 & 4-B7 SIMILAR EXCEPT AS NOTED
DETAIL '4-A'
DETAIL '4-A1'
DETAIL '4-A2'
DETAIL '4-A3' SIMILAR EXCEPT AS NOTED
DETAIL '3-B'
6" = 1 FOOT
PLAN VIEW
PORT SIDE SHOWN
INBOARD
LONGL. BULKHEAD



RED. 8X DATE 7-81
MA. NO. H-67 BLDR. NO. 11-06-05
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-67 BLDR. NO. 11-06-05
FRAME NO. 4



GENERAL NOTES

1. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES AND REF. #1.
2. ALL MAT'L. TO BE A.B.S. GRADE "A" UNLESS OTHERWISE NOTED.
3. SCALLOPS TO BE 2" RADIUS UNLESS OTHERWISE NOTED.
4. SNIPES REFERRED TO THIS NOTE ARE TO BE 7/16 × 7/16 AND SEAL WELDED AFTER FABRICATION.
5. TOP OF HOUSES (MLD) IS TO BE LEVEL AT 69'-0" ABOVE ℄.
6. MAIN DECK HAS CAMBER BUT NO SHEER.
7. FOR PAINTING & SURFACE PREPARATION SEE REF. 14.
8. ⚠1 ALL MAT'L NOTED THUS TO BE ABS GRADE AH-36.
9. LAST P^C MARK USED 281 ON DET 10-A3

REFERENCES

NO	TITLE	DRAWING NO
19.	MIDSHIP SECTION & W T BHD	11-11-01
18.	HYDRAULIC PIPING W T DOORS	16-02-25
17.	HOLE LIST FOR VENT ARRGT & DETS VENT TRUNK	38-10-419
16.	HOLE LIST VENT ARRGT MN DK & BLW FR 102-117 CARGO HOLD 5 & 6	38-10-319
15.	HOLE LIST FOR VENT ARRGT MN DK & BLW FR 52-57 CARGO HOLD #1	38-10-279
14.	PAINT SCHEDULE	19-01-01
13.	VENT ARRGT & DETS STEERING GEAR FLAT	38-10-40
12.	VENT ARRGT MN DK & BLW FR 117-137 CARGO HOLD #7	38-10-36
11.	VENT ARRGT MN DK & BLW FR 76-85 CARGO HOLD #4	38-10-30
10.	VENT ARRGT MN DK & BLW FR 70-76 CARGO HOLD #3	38-10-29
9.	VENT ARRGT MN DK & BLW FR 67-82 CARGO HOLD #2	38-10-28
8.	VENT ARRGT MN DK & BLW FR 52-67 CARGO HOLD #1	38-10-27
7.	MANHOLE, HATCH & SCUTTLE LIST	16-02-01
6.	STRUCTURAL DOOR LIST	16-02-02
5.	STRUCTURAL TRUNKS	11-05-09
4.	AFT PEAK FRAMING	11-03-023
3.	MAIN DK PLATING & FRAMING AFT	11-06-04
2.	MAIN DK PLATING FWD	11-06-03
1.	JOINT WELDING DETS	29-06-01

REVISIONS

REV	ZONE	DESCRIPTION
1	10,11	1. GN #9 WAS GN #8, ADDED GN #8. THIS INCORP REV NOTICE H-216 2. DET 4-C : PC NO 270 WAS 12. 3. DET 4-C1 : PC NO 271 WAS 12. 4. DET 5-B : PC NO 272 WAS 12. 5. DET 10-A : DELETED PC NO 126. 6. DET 11-C : ADDED PC NO 275 FOR 4"x3"x1/4" L. 7. DET 17-A2 : PC NO 273 WAS 150. 8. DET 18-C : PC NO 274 WAS 174. 9. DET 18-B : DELETED PC NO 166. 10. W.T. ENCLOSURE ADDED :- DET 10-C2 & 10-C3 REVISED. DET. 10-A; 10-A1; 10-A2; 10-A3; 11-D; & 11-D1 ADDED. PC. MKS 270 - 281 ADDED. THIS INCORPORATES REV. NOTICE #487.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR L-775/1092 DEC 2, 1978	MARCH 21 '79			
1	5-30-80 JM	F&G 7-2-80				
2						
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY E.Q.S. DATE OCT, 1978
CHECKED BY W.M. DATE 11-10-78
APVD M. G. Sihat Jr. NOV. 10, 1978
APVD J. J. Murphy PROJECT MANAGER 11/13/78
APVD [signature] VP/CHIEF ENGINEER

STACKS & DECKHOUSES

SIZE H — A S I DWG NO **C7-1000** 11-07-05 — REV 1
SCALE

A S I DWG NO C7-1000 11-07-05 REV 1

DISTRIBUTION

DEPARTMENT	PRELIM	REVISION
PRODUCTION		
PROD PLANNING		
MOLD LOFT		
ESTIMATING		
PROJECT MANAGER		
QUALITY CONTROL		
COMPUTER APPL		
ELECTRICAL		
ENGR STANDARDS		
FILES & RECORDS		
HULL		
HULL COMPOSITE		
DESIGN		
OUTFITTING		
STL TAKE OFF		
H V A C		
MATERIAL REQN		
MECHANICAL		
MECH COMPOSITE		
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR		
ADMEASURER		
ABS (NY)		
ABS (NO)		
ABS (YARD)		
USCG (NO)		
USCG (YARD)		
USPHS		
OWNER (HOME)		
OWNER (YARD)		
MARAD (WASH)		
MARAD (YARD)		
TOTAL		
DATE OF PRINT ISSUE		

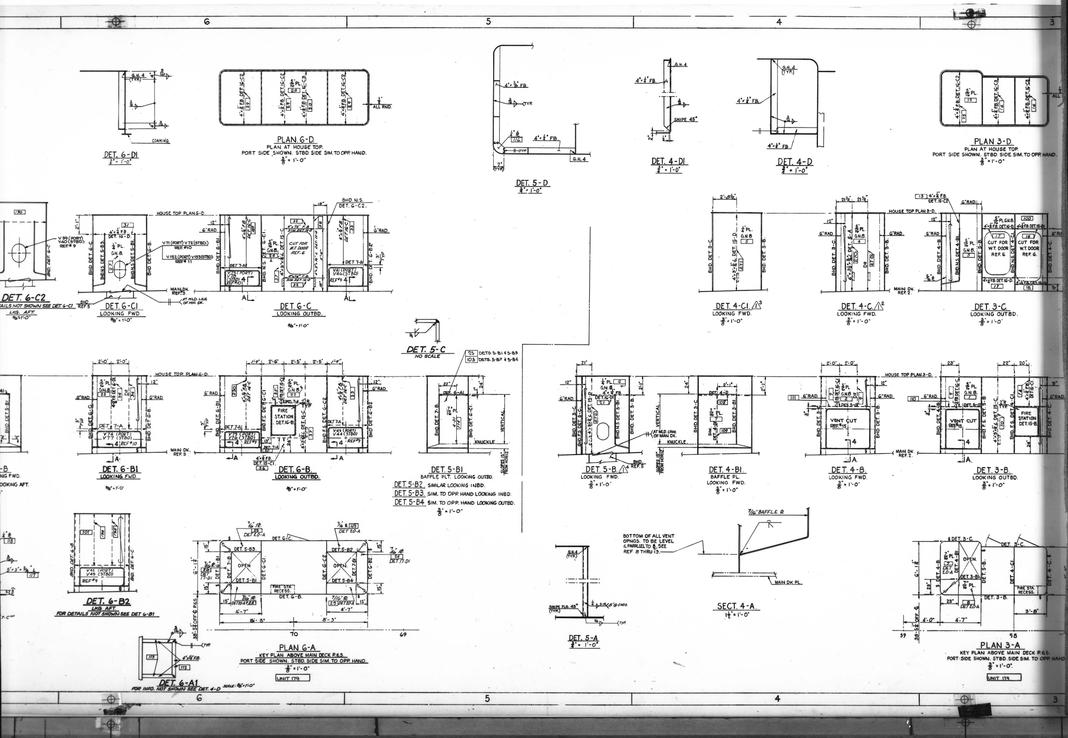
C7-1000 11-07-05

DISTRIBUTION

DEPARTMENT	0	REVISION 1
PRODUCTION	11	30
PROD PLANNING	5	1
MOLD LOFT		3
ESTIMATING		
PROJECT MANAGER	1	1
QUALITY CONTROL		
COMPUTER APPL		
ELECTRICAL		1
ENGR STANDARDS		
FILES & RECORDS	1	1
HULL	2	1
HULL COMPOSITE	2	1
DESIGN	2	1
OUTFITTING	1	1
STL TAKE OFF	1	1
H V A C	1	1
MATERIAL REQN	1	1
MECHANICAL		
MECH COMPOSITE		
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR		
ADMEASURER		
ABS (NY)	4	
ABS (NO)		
ABS (YARD)		1
USCG (NO)	2	1
USCG (YARD)		1
USPHS	2	
OWNER (HOME)	1	1
OWNER (YARD)		
MARAD (WASH)	1	1
MARAD (YARD)	1	1
F&G (H)	3	3
F&G (Y)	1	1
W. HUNN		1
S. & SOLARES		1
TOTAL		
DATE OF PRINT ISSUE		

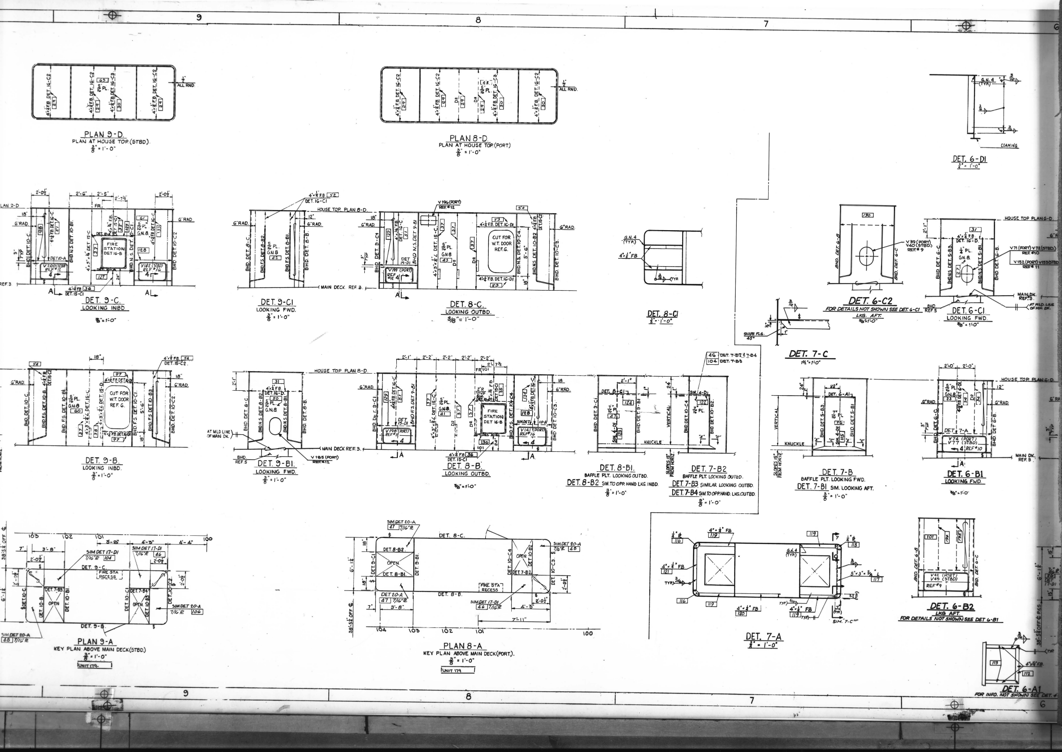
C7-1000 11-07-05

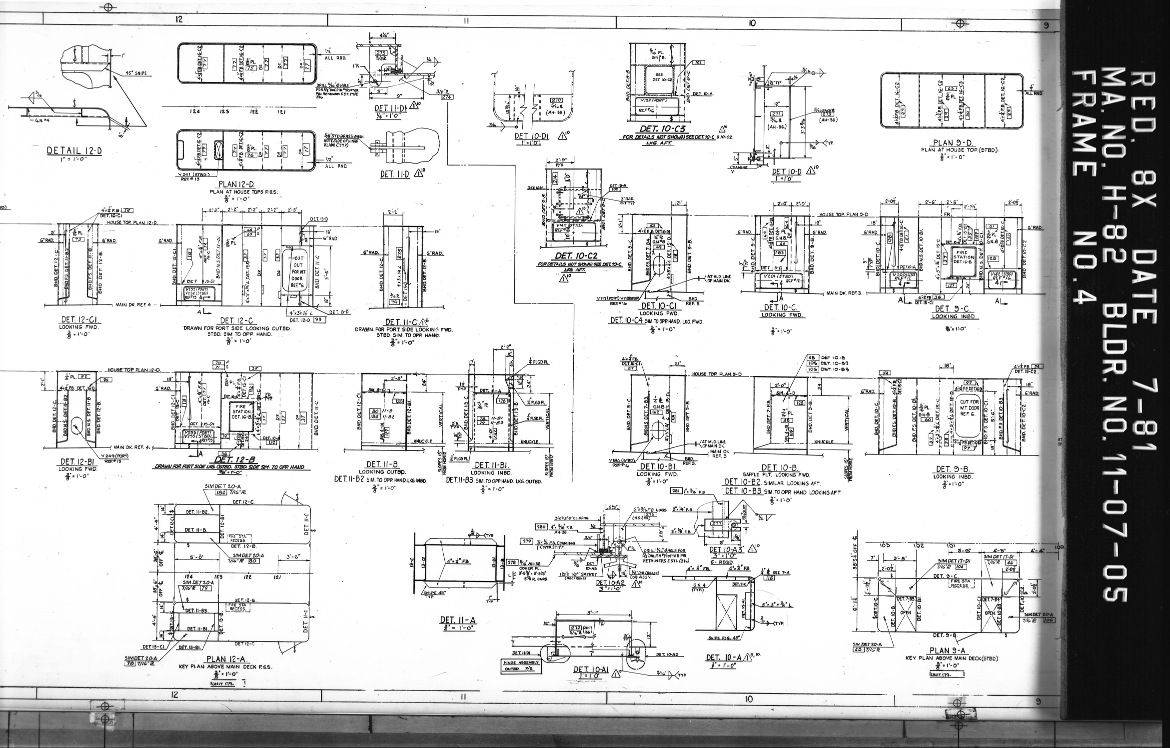
RED. 8X DATE 7-81
MA. NO. H-82 BLDR. NO. 11-07-05
FRAME NO. 1

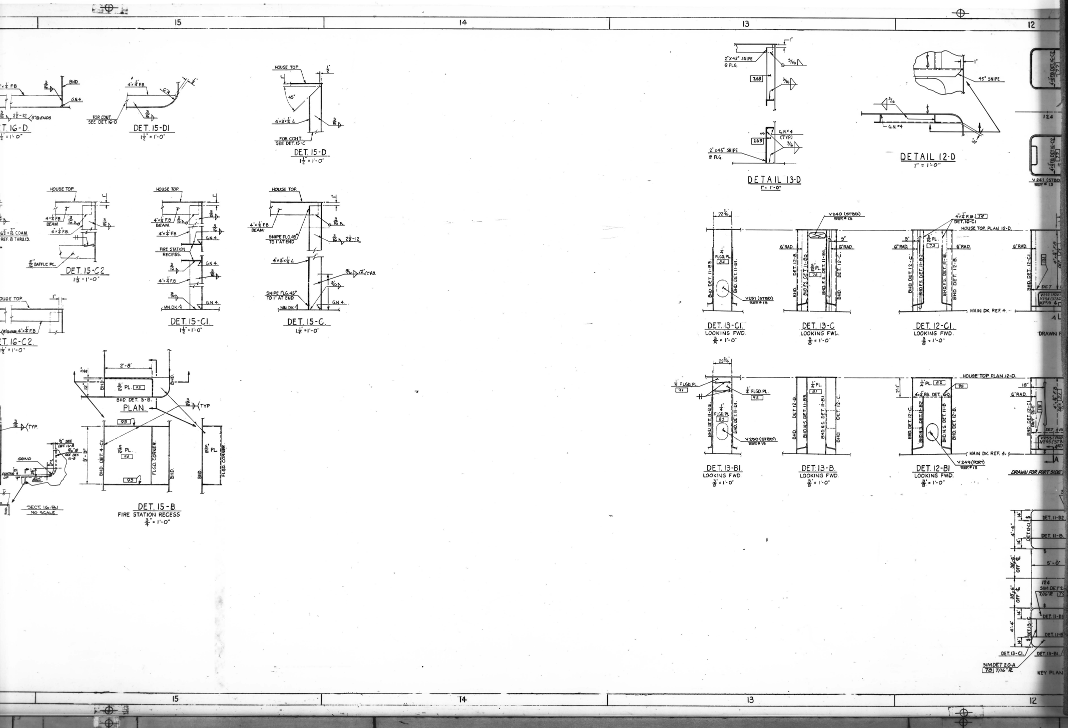


RED. 8X DATE 7-81
MA. NO. H-82 BLDR. NO. 11-07-05
FRAME NO. 2

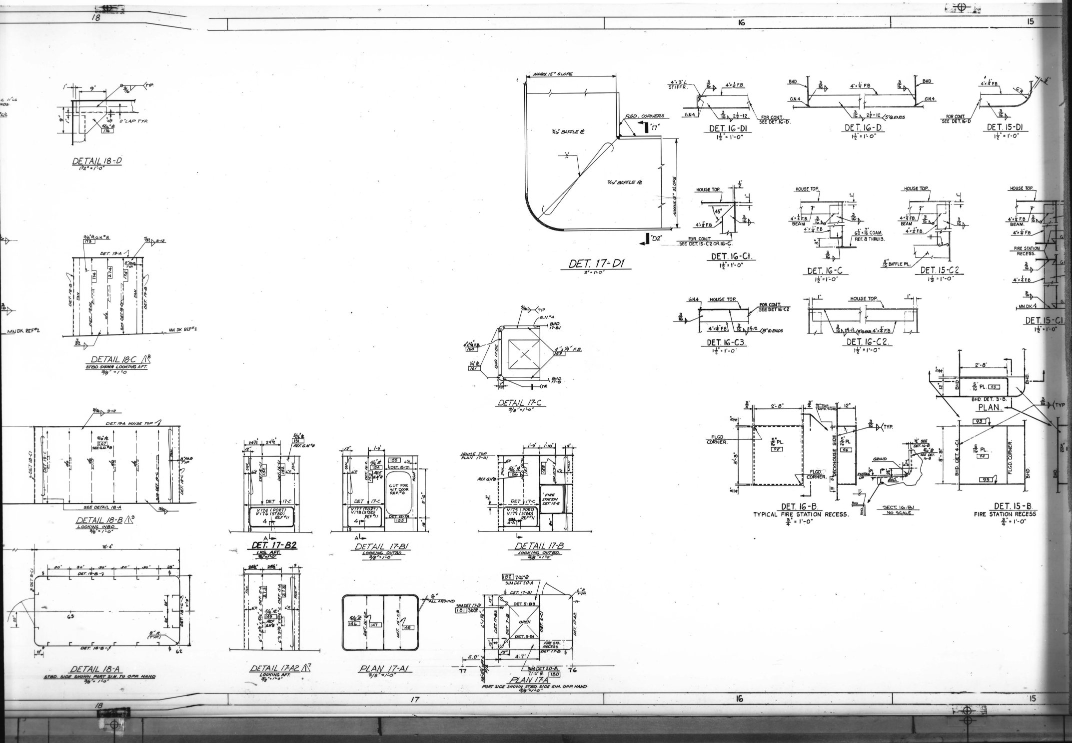
RED. 8X DATE 7-81
MA. NO. H-82 BLDR. NO. 11-07-05
FRAME NO. 3



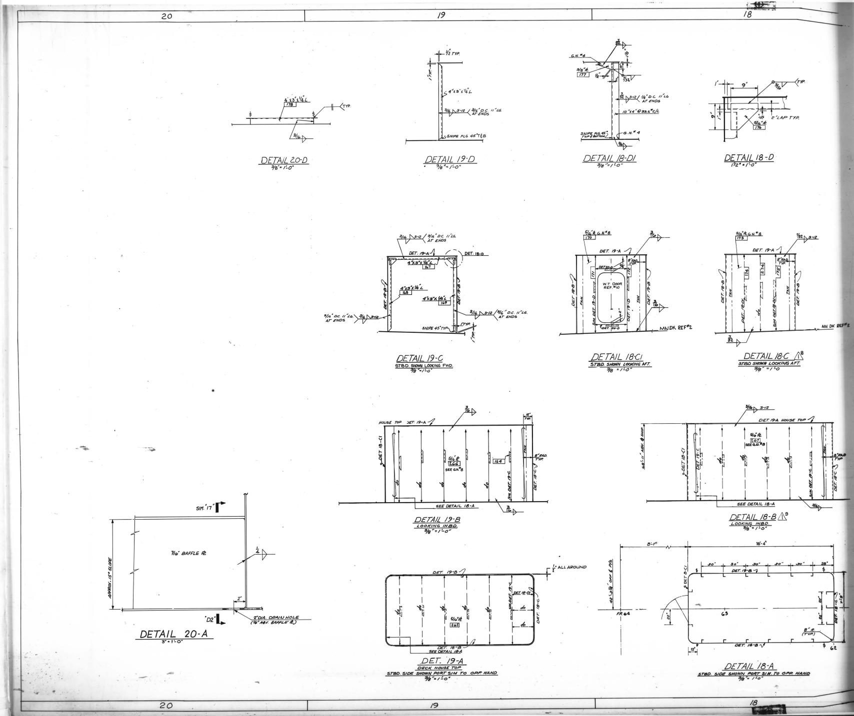

DETAIL 12-D
1" = 1'-0"
PLAN 12-D.
PLAN AT HOUSE TOPS P.&S.
3/8" = 1'-0"
DET. 11-D1
1/4" = 1'-0"
DET. 11-D
DET. 10-D1
1" = 1'-0"
DET. 10-C3
FOR DETAILS NOT SHOWN SEE DET. 10-C & 10-C2.
LKG. AFT.
DET. 10-D
1" = 1'-0"
PLAN 9-D.
PLAN AT HOUSE TOP (STBD).
3/8" = 1'-0"
DET. 10-C2
FOR DETAILS NOT SHOWN SEE DET. 10-C
LKG. AFT.
DET. 12-C1.
LOOKING FWD.
3/8" = 1'-0"
DET. 12-C
DRAWN FOR PORT SIDE LOOKING OUTBD.
STBD. SIM. TO OPP. HAND.
3/8" = 1'-0"
DET. 11-C.
DRAWN FOR PORT SIDE LOOKING FWD.
STBD. SIM. TO OPP. HAND.
3/8" = 1'-0"
DET. 10-C1
LOOKING FWD.
DET. 10-C4 SIM. TO OPP. HAND. LKG. FWD.
3/8" = 1'-0"
DET. 10-C.
LOOKING FWD.
3/8" = 1'-0"
DET. 9-C.
LOOKING INBD.
3/8" = 1'-0"
DET. 12-B1
LOOKING FWD.
3/8" = 1'-0"
DET. 12-B
DRAWN FOR PORT SIDE LKG. OUTBD. STBD. SIDE SIM. TO OPP. HAND
3/8" = 1'-0"
DET. 11-B.
LOOKING OUTBD.
DET. 11-B2 SIM. TO OPP. HAND. LKG. INBD.
3/8" = 1'-0"
DET. 11-B1.
LOOKING INBD.
DET. 11-B3. SIM. TO OPP. HAND. LKG. OUTBD.
3/8" = 1'-0"
DET. 10-B1
LOOKING FWD.
3/8" = 1'-0"
DET. 10-B.
BAFFLE PLT. LOOKING FWD.
DET. 10-B2 SIMILAR LOOKING AFT.
DET. 10-B3. SIM. TO OPP. HAND LOOKING AFT.
3/8" = 1'-0"
DET. 9-B.
LOOKING INBD.
3/8" = 1'-0"
DET. 11-A
3/8" = 1'-0"
DET. 10-A2
3" = 1'-0"
DET. 10-A3
3" = 1'-0"
6 - REQD
DET. 10-A1
1" = 1'-0"
DET. 10-A
3/8" = 1'-0"
PLAN 12-A.
KEY PLAN ABOVE MAIN DECK P.&S.
3/8" = 1'-0"
UNIT 179
PLAN 9-A
KEY PLAN ABOVE MAIN DECK (STBD.)
3/8" = 1'-0"
UNIT 179
RED. 8X DATE 7-81
MA. NO. H-82 BLDR. NO. 11-07-05
FRAME NO. 4

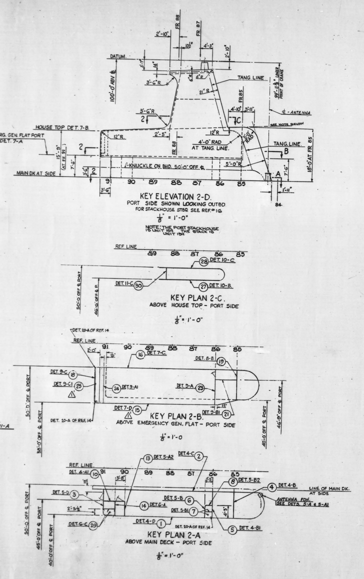


RED. 8X DATE 7-81
MA. NO. H-82 BLDR. NO. 11-07-05
FRAME NO. 5



RED. 8X DATE 7-81
MA. NO. H-82 BLDR. NO. 11-07-05
FRAME NO. 6


20
19
18
DETAIL 20-D
3/8" = 1'-0"
DETAIL 19-D
3/8" = 1'-0"
DETAIL 18-D1
3/8" = 1'-0"
DETAIL 18-D
1 1/2" = 1'-0"
DETAIL 19-C
STBD. SHOWN LOOKING FWD.
3/8" = 1'-0"
DETAIL 18-C1
STBD. SHOWN LOOKING AFT
3/8" = 1'-0"
DETAIL 18-C
STBD SHOWN LOOKING AFT.
3/8" = 1'-0
DETAIL 19-B
LOOKING INBD.
3/8" = 1'-0"
DETAIL 18-B
LOOKING INBD.
3/8" = 1'-0"
7/16" BAFFLE PL
2" DIA. DRAIN HOLE
DETAIL 20-A
3" = 1'-0"
DET. 19-A
DECK HOUSE TOP
STBD. SIDE SHOWN PORT SIM. TO OPP. HAND
3/8" = 1'-0"
DETAIL 18-A
STBD. SIDE SHOWN PORT SIM. TO OPP. HAND
3/8" = 1'-0"



GENERAL NOTES

1. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES & REF. #1.
2. ALL MAT'L. TO BE A.B.S. GRADE "A" UNLESS OTHERWISSE NOTED.
3. SNIPES REFERRED TO THIS NOTE ARE TO BE 7/16 x 7/16 AND SEAL WELDED AFTER FABRICATION.
4. SCALLOPS TO BE 2" RADIUS UNLESS OTHERWISE NOTED.
5. MAIN DECK HAS CAMBER BUT NO SHEER
6. FOR PAINTING & SURFACE PREPARATION SEE REF. #13.
7. ALL PORTIONS OF THE UNSTIFFENED SIDE OF BHDS. EXPOSED TO VIEW SHALL BE FLUSH PLATED WITH STIFFENERS. TRIMMED AS REQ'D. IN WAY OF ANY VARIATION OF THICKNESS.
8. COAMINGS AT UPPER STACK (SECTION 10-A3) AND AT HOUSE TOP (DET. 7-B) IN WAY OF UPTAKES ARE TO BE INSTALLED PARALLEL TO LINE OF UPTAKES. ALL UPTAKES SHOWN ARE VERTICAL (NORMAL TO BL) EXCEPT THE MAIN UPTAKE WHICH RAKES AFT 0.367"/FT. AS IT ASCENDS. SEE ALSO REF. 10, 11 & 12.
9. ALL MAT'L NOTED THUS TO BE: ABS GRADE AH-36.
10. LAST PC MARK USED IS 319 ON DET 4-C

REVISIONS

REV	ZONE	DESCRIPTION
1	7,8,9 13	1. DET 7-B & 7-D: REVISED LOCATION OF BHDS REF #7 BETWN FRS 88-91 ADDED PC NOS 307 & 308. REVISED STIFFNRS TO SUIT. DET 7-C: REVISED STIFFNRS @ FR 91 & 29" FWD OF FR 91. DET 9-C & 9-C1: REVISED "BHD 15 DET 8-D TO DET 7-D. REVISED LOCATION OF BHD 25 TO 2'-0" AFT OF FR 91 & HEIGHT OF BHD 25 TO 21½" BELOW HOUSE TOP. DET 9-A1: REVISED LOCATION OF BHD 24 TO 6" AFT OF FR 91 & "BHD 15 DET 8-D TO READ DET 7-D. DET 13-B: REVISED BHD ABV. 7'-6" FLAT TO READ BHD 15 DET 7-D THIS ITEM RELEASES RES #1.
		2. GN #10 WAS GN #9. ADDED GN #9. INC REV NOTICE H-216
	4,6	3. DET 4-D: V138 BETWN FRS 90 & 91 REVISED FROM REF #19 TO REF #8. ALSO DELETED 5/16" FILLER PL PC NOS 229 & 228 @ BOTTOM OF V138. REVISED BHD 29 DET 6-C TO SUIT. CWD
2	5	1. DET 4-D: @ FR 89 VERT STIFFNR DET 12-C1 REVISED PC NO FROM 11 TO 309.
	5	2. DET 5-D: HORIZ STIFFNR 18" ABOVE MN DK REVISED PC NO FROM 18 TO 310.
	6,7	3. DET 7-A: DELETED PC NO 53 FROM 5" F.B FWD FR 85. STIFFNR @ FR 87 REVISED PC NO FROM 56 TO 57. STIFFNR @ FR 87 & 87 2/3 ADDED PC NO 67 TO INBD STIFFNR.
	6	4. DET 7-B: FWD FR 85 DELETED PC NO 143. ADDED PC NO 314 FOR STIFFNR @ FR 85 2/3 OUTBD OF 46'-9" OFF CL.
	13	5. DET 13-D: PC NO 311 ADDED FOR INBD 6" L, PC NO 312 ADDED FOR OUTBD 6" L.
	9	6. DET 9-C: PC NO 313 ADDED FOR INBD CAP PLATE @ HOUSE TOP.
	9	7. SECT 9-D: 5/16" PL REVISED TO READ 7/16" PL.
	10,11	8. SECT 10-A3: HOLE CUT 24½" FWD FR 88 TO BE 16 1/4" DIA CLR OPNG PC NO 157. HOLE CUT 40" FWD FR 88 TO BE 14 1/8" DIA CLR OPNG PC NO 315.
	10	9. DET 10-C: ADDED VERTICAL BUTT @ TANG PT OF UPPER FWD END OF STACK. ADDED PC NO 317 AND ORANGE PEEL NOTE.
	11	10. SECT. 11-D: REVISED PC NO FROM 149 TO 316.
	7	11. DET 7-A: INBD BRKTS FWD FR 88 REVISED FROM DET 13-D TO DET 13-B. THIS ITEM INC. REV. NOTICE H-234.
	11,12	12. DET 11-A & 12-C: REVISED WELD TO 3/16" THK. ABS REQT. CWD
3	7	1. DET. 7-D: DELETED STIFFNR PC NO 88 @ FR. 90.
		2. DET 4-C: REVISED PC NOS ON VERTICAL STIFFENERS @ 21" AFT FR 91, 16" FWD FR 87, 4'-0" FWD FR 87 & 18" FWD FR 85 AS FOLLOWS: FROM 15 TO 318 & FROM 213 TO 319. THIS INCORP REV NOTICE NO H-411.
	7	3. DET. 7-D: ADDED HDR @ 6" ABOVE VENT. CUT V-376 BETWEEN FR-88-90. ADDED DET. 8-D2 & PC NO. 318 THIS INCORP. REV. NO. H-470.
4		1. DET 4-A1 & 12-A1 :- WELDING REVISED. THIS INCORPORATES REV. NOTICE # H-497.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR L772/1088 DEC 5,1978				
1	2-8-79	F&G LTR L772/1612 2-23-79	MAR 19, 1979			
2	5-31-79	F&G LETTER 7-2-79				
3	5-28-80	F&G. JUNE 6 '80.				
4	10/16/80	NOT REQUIRED				
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
~~1~~	~~RESERVE VENT CUTS PENDING DEVELOPEMENT~~

REFERENCES

REV	NO	TITLE	DRAWING NO
	22	LIST OF HOLES FOR WIREWAYS	60-00-09
	21	MIDSHIP SECTION	11-11-01
	20	MISC. ELECT. FDNS. OUTSIDE MACHINERY SPACES	11-12-06
	19	HOLE LIST VENT. ARRGT. MN. DK. & BEL. FR. 76-85 HOLD #4.	38-10-309
	18	HOLE LIST VENT. ARRGT. & DETS. MN. DK. FR. 85-90 & STACKS P/S	38-10-149
	17	FEEDTHRU INSULATOR IL-18/U	REB G1003
	16	STACK & DECKHOUSES (STACK HOUSE STBD.)	11-07-053
	15	MANHOLE, HATCH & SCUTTLES	16-02-01
	14	STACK & DECKHOUSES	11-07-05
	13	PAINTING & DECKCOVERING SCHEDULE	19-01-01
	12	STANDBY DIESEL GEN. EXH. PIPING SUPPORT ARRGT. & DETS.	52-00-065
	11	EMERGENCY DIESEL EXH. PIPING ARRGT. & DETS.	52-00-04
	10	UPTAKES & INNER STACKS ARRGT. & DETS.	52-00-01
	9	VENT. ARRGT. MACHY. SPACE PLANS	38-01-18
	8	VENT. ARRGT. MN. DK. & BEL. FR. 90-101 HOLD 5 & 6.	38-10-31
	7	VENT. ARRGT. & DETS. MN. DK. FR. 85-90 & STACKS P & S.	38-10-14
	6	FOUNDATIONS OUTSIDE MACHY. SPACES	11-12-05
	5	M. J. DOOR LIST	HOPEMAN BRGE. DWG. NO.
	4	STRUCTURAL DOOR LIST	16-02-02
	3	SHELL EXPANSION AFT.	11-01-02
	2	MAIN DECK PLATING AFT.	11-06-04
	1	JOINT WELDING DETAILS	29-06-01

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY A.B. DATE SEPT. 78
CHECKED BY W.M. DATE 11-8-78
APVD M. S. Seibert Jr. NOV. 10, 1978
APVD J. J. Murphy 11/13/78 PROJECT MANAGER
APVD VP/CHIEF ENGINEER

STACKS & DECKHOUSES (STACK HSE. PORT)

SIZE H — A S I DWG NO C7-1000 11-07-052 — REV 4
SCALE AS NOTED

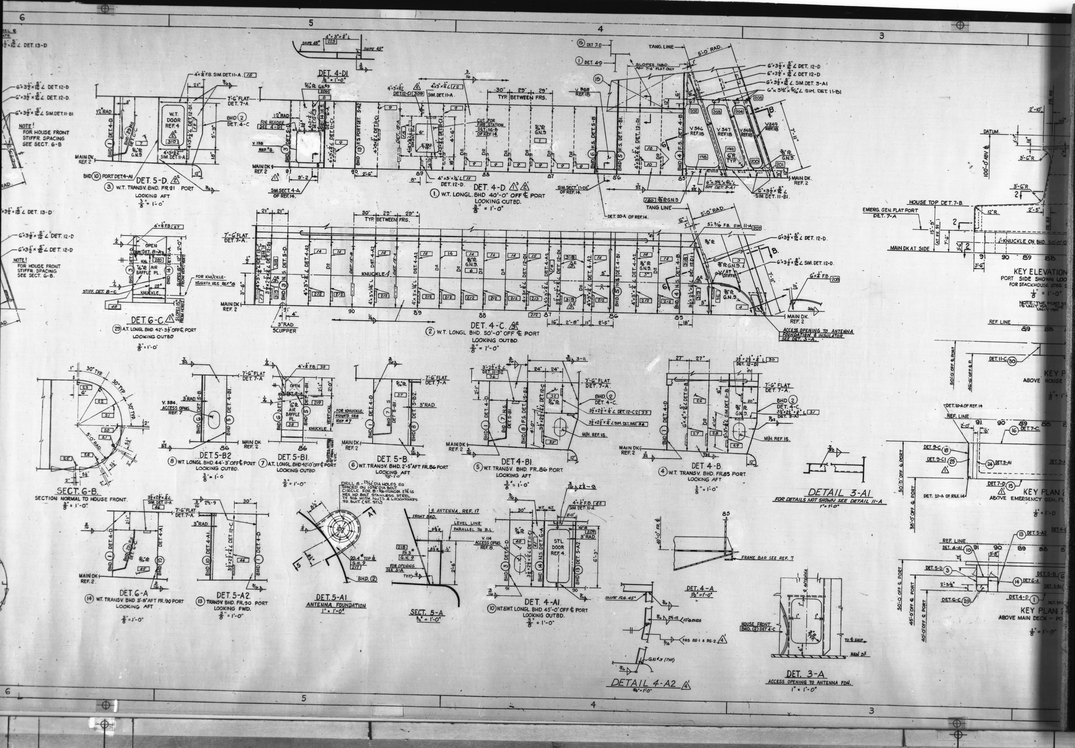
A S I DWG NO C7-1000 11-07-052 REV 4

DISTRIBUTION

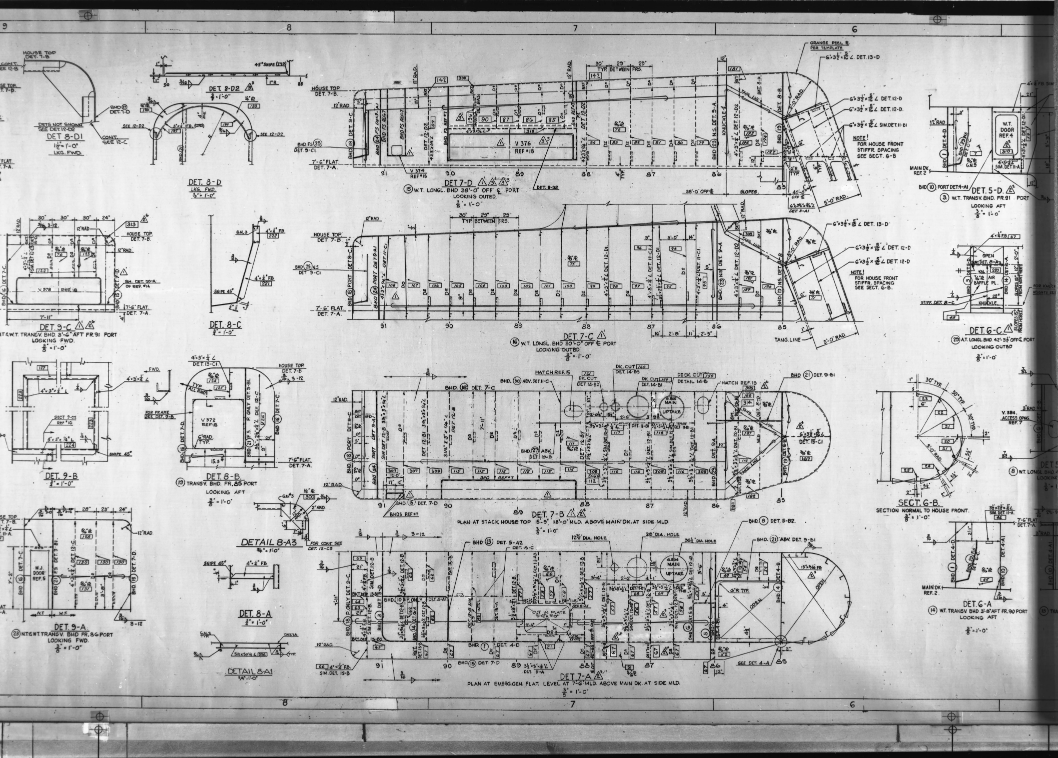
DEPARTMENT
PRODUCTION
PROD PLANNING
MOLD LOFT
ESTIMATING
PROJECT MANAGER
QUALITY CONTROL
COMPUTER APPL
ELECTRICAL
ENGR STANDARDS
FILES & RECORDS
HULL
HULL COMPOSITE
DESIGN
OUTFITTING
STL TAKE OFF
H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
RESEARCH & DEV
BAYOU BLACK
HARVEY
INDUSTRIAL DIV
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
OWNER (HOME)
OWNER (YARD)
MARAD (WASH)
MARAD (YARD)
F&G
F&G
W. Hunn
Sig Solares
TOTAL
DATE OF PRINT ISSUE

C7-1000 11-07-052

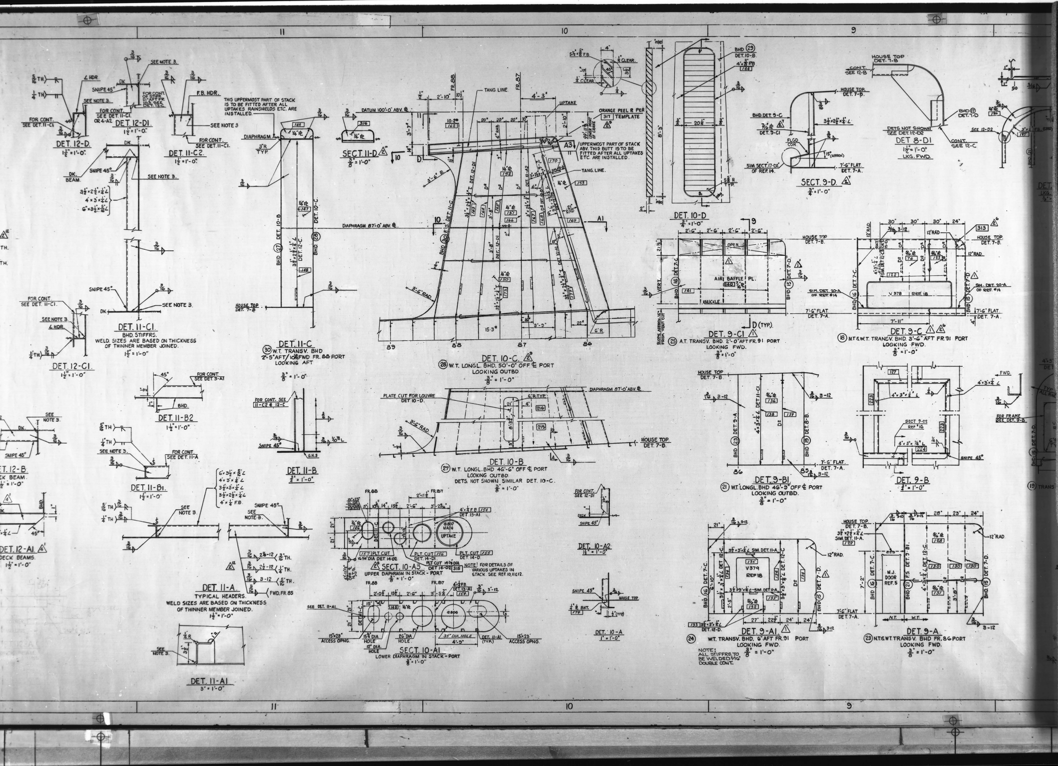
RED. 8X DATE 7-81
MA. NO. H-83 BLDR. NO. 11-07-052
FRAME NO. 1



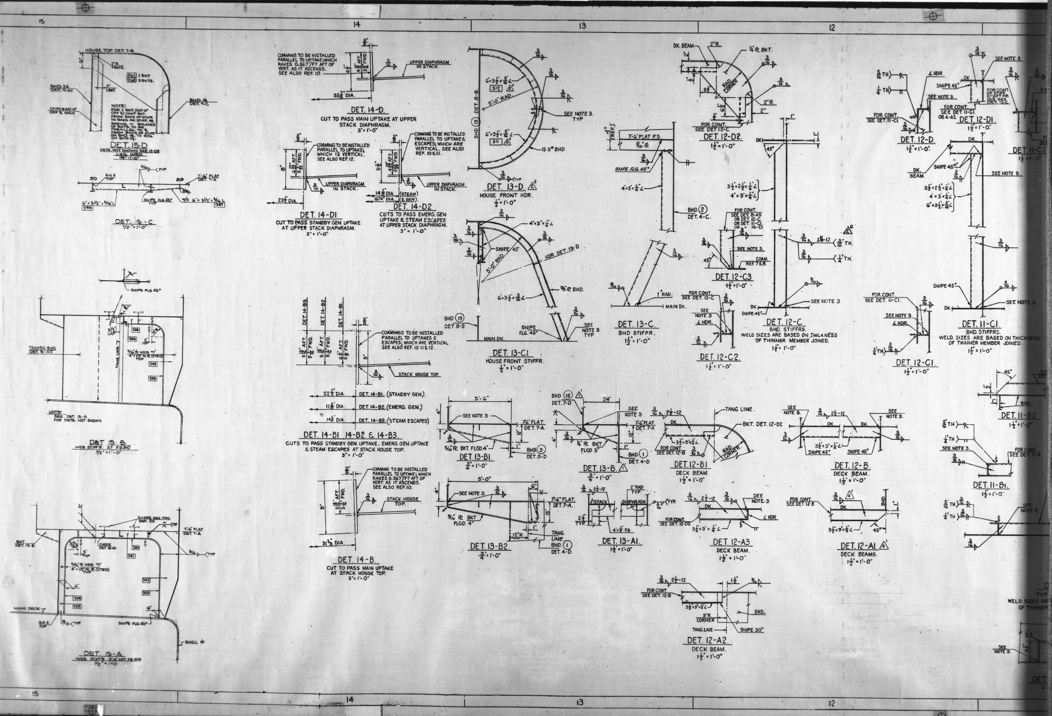
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MA. NO. H-83 BLDR. NO. 11-07-052
FRAME NO. 2



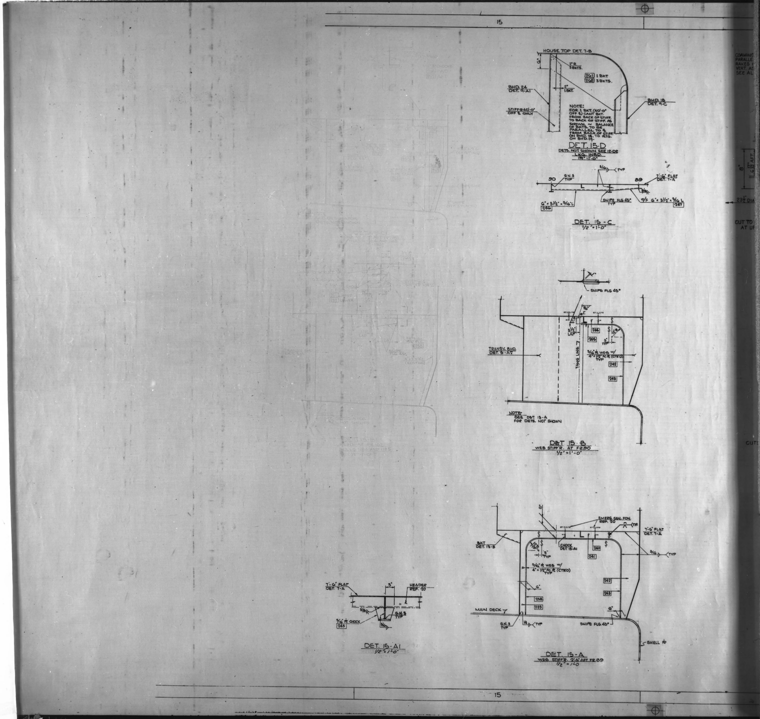
RED. 8X DATE 7-81
MA. NO. H-83 BLDR. NO. 11-07-052
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-83 BLDR. NO. 11-07-052
FRAME NO. 4

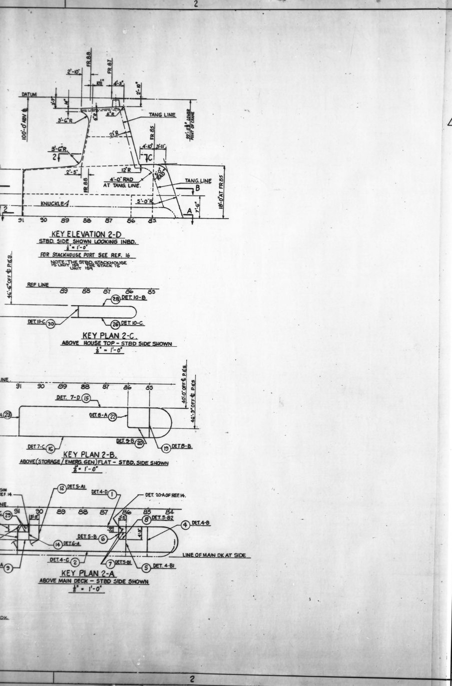


RED. 8X DATE 7-81
MA. NO. H-83 BLDR. NO. 11-07-052
FRAME NO. 5



RED. 8X DATE 7-81
MA. NO. H-83 BLDR. NO. 11-07-052
FRAME NO. 6

RED. 8X DATE 7-81
MA. NO. H-84 BLDR. NO. 11-07-053
FRAME NO. 1



GENERAL NOTES

1. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES & REF# 1.
2. ALL MAT'L. TO BE A.B.S. GRADE "A" UNLESS OTHERWISE NOTED.
3. SNIPES REFERRED TO THIS NOTE ARE TO BE 7/16 x 7/16 AND SEAL WELDED AFTER FABRICATION.
4. SCALLOPS TO BE 2" RAD. UNLESS OTHERWISE NOTED.
5. MAIN DECK HAS CAMBER BUT NO SHEER.
6. FOR PAINTING & SURFACE PREPARATION SEE REF. 13.
7. ALL PORTIONS OF THE UNSTIFFENED SIDE OF BHDS. EXPOSED TO VIEW SHALL BE FLUSH PLATED WITH STIFFENERS TRIMMED AS REQ'D. IN WAY OF ANY VARIATION OF THICKNESS.
8. COAMINGS AT UPPER STACK DIAPHRAM (SECT. 10-A2) AND AT HOUSE TOP (DET. 7-B) IN WAY OF UPTAKES ARE TO BE INSTALLED PARALLEL TO LINE OF UPTAKES. ALL UPTAKES SHOWN ARE VERTICAL (NORMAL TO ℄) EXCEPT THE MAIN UPTAKE WHICH RAKES AFT 0.367"/FT. AS IT ASCENDS. SEE ALSO REF. 10, 11 & 12.
9. ⚠1 ALL MAT'L NOTED THUS TO BE ABS GRADE AH-36.
10. LAST PC MARK USED IS 324 ON DET 13-D

REVISIONS

REV	ZONE	DESCRIPTION
1	3,4,5	1. GN# 10 WAS GN#9. ADDED GN#9. DETS 4-D, 4-C, 4-B, 5-D: THE FOLLOWING PC MKS TO BE NOTED GN#9, 1, 3, 4, 5, 7, 21, 166, 303 & 72.
	1	2. RESERVATION #1 RELEASED
	1,4	3. DET 4-D: V 137 BETWN FRS 90 & 91 REVISED FROM REF #19 TO REF #21. ADDED REF #21. ALSO DELETED 7/16 FILLER PL PC NOS 202 & 203 @ BOTTOM OF V 137. REVISED BHD 29 DET 6-C TO SUIT. ITEM #1 INCORP REV NOTICE H-216 CWD
2	3	1. DET 4-C: SECT FWD OF FR 84 @ MN DK 6" x 1/4" FB GIVEN PC NO 319.
	4	2. DET 4-D: @ FR 87 1/3 VERTICAL STIFF'NR REVISED FROM PC NO 9 TO 322. BETWN FR 87 & 87 2/3 HORIZ STIFF'NR 4'-0" ABOVE MN DK REVISED PC NO 9 TO 318.
	5	3. DET 5-D: HORIZ STIFF'NR 18" ABOVE MN DK REVISED PC NO FROM 35 TO 320.
	6	4. SECT 6-B: ADDED PC NOS 314, 315, & 316 TO L'S ON INBD SIDE HOUSE FRONT.
	6,7	5. DET 7-B: ADDED PC NO 321 FOR STIFF'NR @ FR 85 2/3 OUTBD OF 46'-9" OFF ℄. 5/16" PL ABOVE 7'-11" SEAM BETWN FRS 85 2/3 & 90 2/3 GIVEN PC NO 132.
	10	6. DET 10-C: ADDED VERTICAL BUTT @ TANG PT OF UPPER FWD END OF STACK. ADDED PC NO 317 AND ORANGE PEEL NOTE.
	12	7. DET 12-D2: ADDED PC NO 142 TO 10.2# BKT.
	13	8. DET 13-D: PC NO 323 ADDED FOR OUTBD 6" L, PC NO 324 ADDED FOR INBD 6" L.
	11,12	9. DET 11-A & 12-C: REVISED WELD TO 3/16" PL.
	7,11	10. DET 7-A & 11-C: REVISED WELDING.
	4	11. DET 4-D: REVISED WELDING TO 7'-6" FLAT. ITEM 9, 10, & 11 PER ABS COMMENTS. CWD
3	4, 7, 9	1. DET 4-D: DELETED PC NO 190 BETW FR 90-91. DET 7-B: DELETED PC NO 116 BETW FR 85-86. DET 9-A: DELETED LOWER PC NO 186. THIS ITEM INCORPORATES REV NOTICE NO H-408.
		2. DETAIL 12-A1 :- WELDING REVISED. THIS INCORPORATES REV. NOTICE # H-497.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G LTR LT72/1100 DEC 5, 1978				
1	2-8-79	F&G LTR LT72/1695 2-23-79	MAR 8 1979			
2	5-31-79	F&G. JULY 3 '79.				
3	AB 10/10/80	NOT REQUIRED				
4						
5						
6						
7						
8						
9						
10						

A S I DWG NO 11-07-053 REV 3

RESERVATIONS

NO	DESCRIPTION
⚠2	~~RESERVE VENT CUTS PENDING DEVELOPMENT~~

REFERENCES

NO	TITLE	DRAWING NO
⚠3 21	VENT ARRGT MN DK & BELOW FR 90-101, HOLD 5 & 6	38-10-31
20	MIDSHIP SECTION	11-11-01
19	VENT. ARRGT. MN. DK. & BEL. FR. 76-85 HOLD #4 (HOLE LIST)	38-10-309
18	VENT. ARRGT. & DETS. MN. DK. FR. 85-90 & STACKS P&S (HOLE LIST)	38-10-149
17	FEEDTHRU INSULATOR 1L/18U	REB G1003
16	STACK & DECKHOUSE (STACKS PORT)	11-07-052
15	MANHOLE, HATCH & SCUTTLES	16-02-01
14	STACK & DECKHOUSE	11-07-05
13	PAINT & DECK COVERING SCHEDULE	19-01-01
12	STANDBY DIESEL GEN. EXH. PIPING SUPPORT ARRGT & DETS.	52-00-063
11	EMERGENCY DIESEL EXH. PIPING ARRGT. & DETS.	52-00-04
10	UPTAKES & INNER STACKS ARRGT. & DETS.	52-00-01
9	VENT. ARRGT. MACHY. SPACE PLANS	38-10-18
8	VENT. ARRGT. MN. DK. & BEL. FR. 90-101 HOLD 5 & 6 (HOLE LIST)	38-10-319
7	VENT. ARRGT. & DET. MN. DK. FR. 85-90 & STACKS P&S	38-10-14
6	FOUNDATIONS OUTSIDE MACHY. SPACES	11-12-05
5	M.J. DOOR LIST	16-02-04
4	STRUCT. DOOR LIST	16-02-02
3	SHELL EXPANSION AFT	11-01-02
2	MAIN DK. PLATING & FRAMING AFT.	11-06-04
1	JOINT WELDING DETAILS	29-06-01

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY AB — DATE SEPT. 78
CHECKED BY W.M. — DATE 11-8-78
APVD W. S. [signature] Nov. 10, 1978.
APVD J. J. Murphy, PROJECT MANAGER 11/13/78
APVD [signature], VP/CHIEF ENGINEER

STACKS & DECKHOUSES (STACK HOUSE STBD.)

SIZE H — A S I DWG NO C7-1000 11-07-053 — REV 3
SCALE AS NOTED — SHT. 3 OF 3

A S I DWG NO C7-1000 11-07-053 REV 3

DISTRIBUTION

DEPARTMENT: PRODUCTION; PROD PLANNING; MOLD LOFT; ESTIMATING; PROJECT MANAGER; QUALITY CONTROL; COMPUTER APPL; ELECTRICAL; ENGR STANDARDS; FILES & RECORDS; HULL; HULL COMPOSITE; DESIGN; OUTFITTING; STL TAKE OFF; H V A C; MATERIAL REQN; MECHANICAL; MECH COMPOSITE; RESEARCH & DEV; BAYOU BLACK; HARVEY; INDUSTRIAL DIV; SERVICE FOUNDRY; JOINER CONTRACTOR; ADMEASURER; ABS (NY); ABS (NO); ABS (YARD); USCG (NO); USCG (YARD); USPHS; OWNER (HOME); OWNER (YARD); MARAD (WASH); MARAD (YARD)

TOTAL
DATE OF PRINT ISSUE

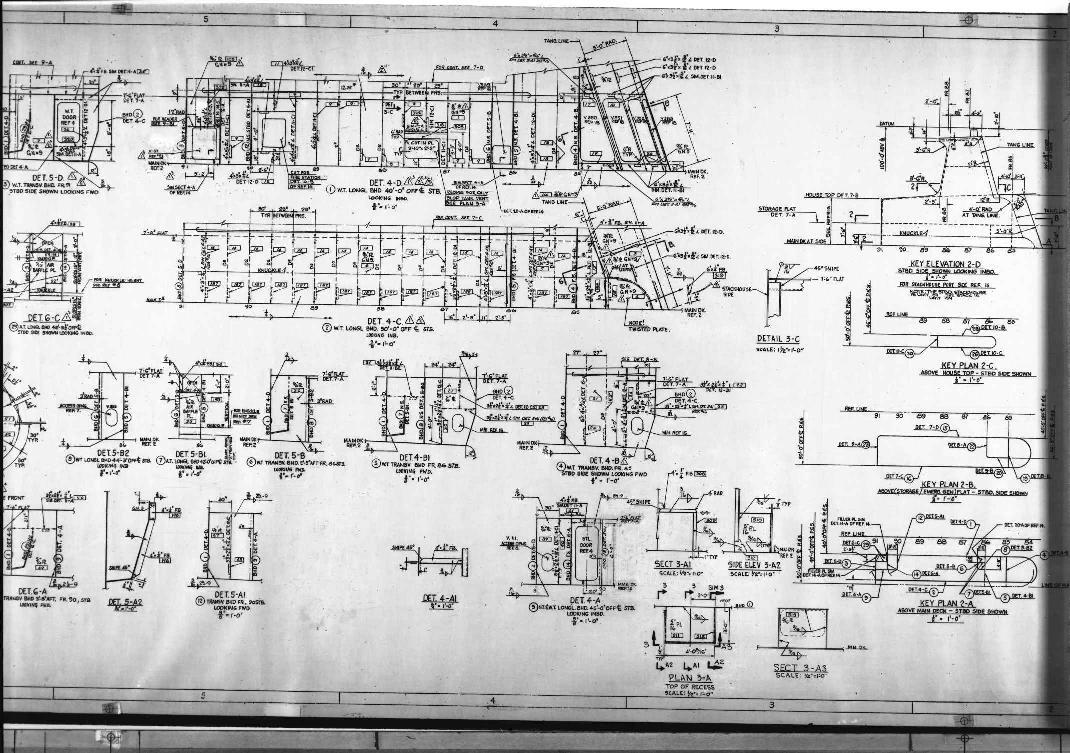
C7-1000 11-07-053

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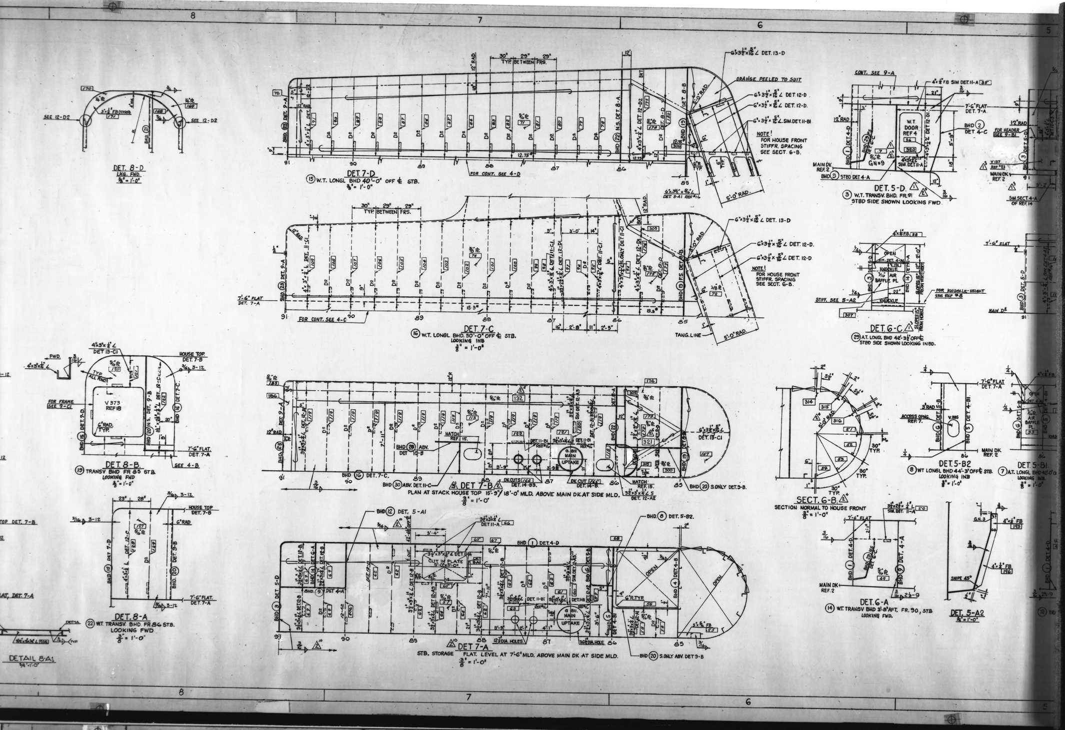
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TOTAL
DATE OF PRINT ISSUE

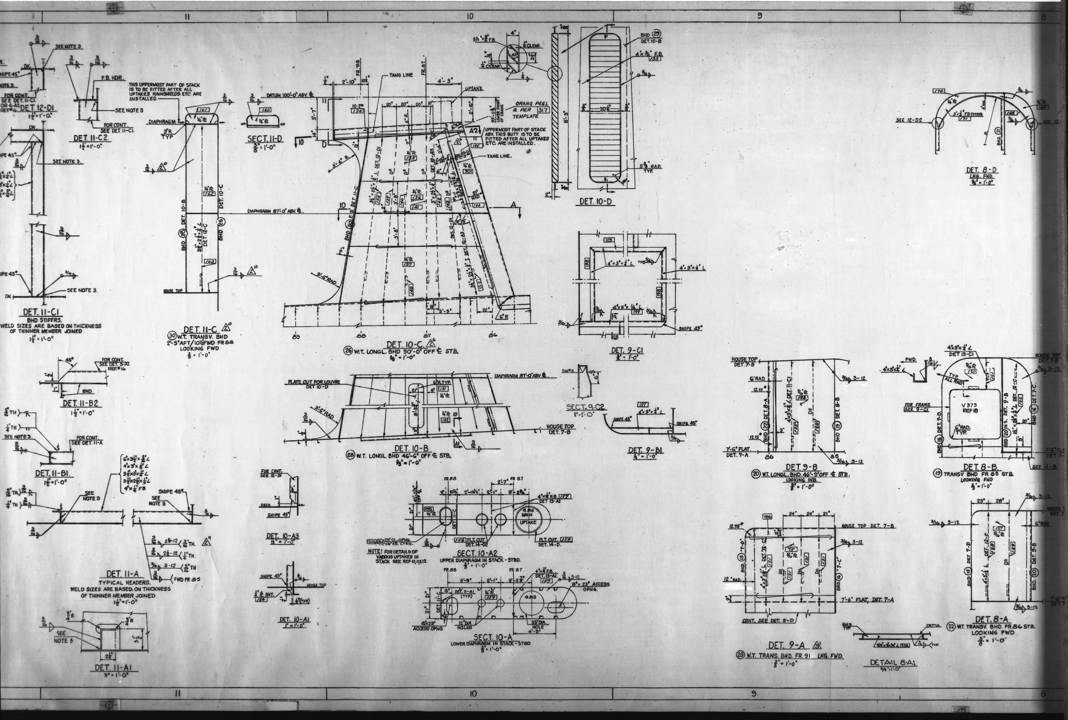
C7-1000 11-07-053



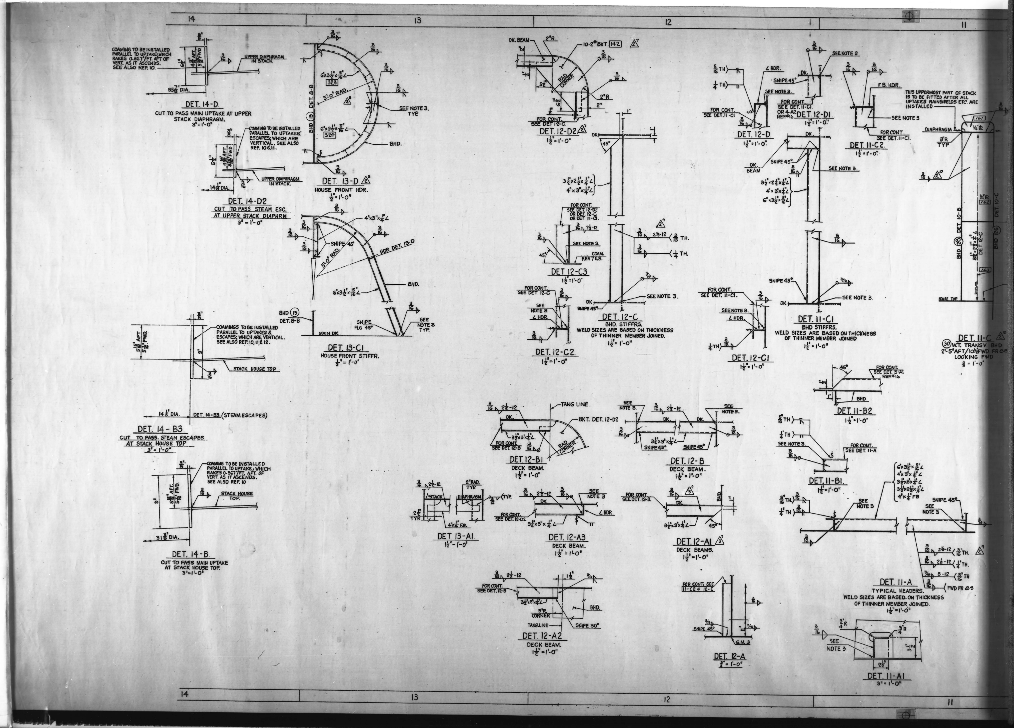
RED. 8X DATE 7-81
MA. NO. H-84 BLDR. NO. 11-07-053
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-84 BLDR. NO. 11-07-053
FRAME NO. 3



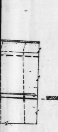
RED. 8X DATE 7-81
MA. NO. H-84 BLDR. NO. 11-07-053
FRAME NO. 4

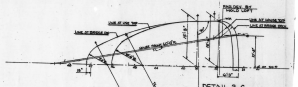


RED. 8X DATE 7-81
MA. NO. H-84 BLDR. NO. 11-07-053
FRAME NO. 5

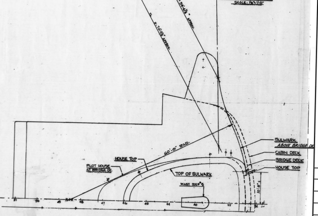
GENERAL NOTES

1. ALL WELDING SHALL BE IN ACCORDANCE WITH A.B.S. RULES & REF. #3.
2. THE MOLDED LINE OF THE HOUSE FRONT IS THE SIDE FACING MIDSHIP.
3. THE MOLDED LINE OF DECKS & HOUSE TOP IS THE UNDERSIDE OF THE PLATING.
4. UPPER DECK, CABIN DECK & BRIDGE DECK HAVE CAMBER & SHEER, PILOT HOUSE TOP HAS ONLY SHEER & NO CAMBER.
5. WELDS TO BE WRAPPED AT ALL SNIPES IN N.T. STRUCTURE.
6. SNIPES REFERRED TO THIS NOTE ARE TO BE 7/16" x 7/16" & SEAL WELDED AFTER FABRICATION.
7. FOR PAINTING & SURFACE PREPARATION SEE REF. #2.
8. ALL MATERIAL SHOWN IS MILD STEEL UNLESS OTHERWISE NOTED.
9. THE MOLDED LINE OF ANGLE STIFFS IS THE HEEL OF THE ANGLE.
10. TANGENT LINE LOCATIONS, SEAMS & BUTTS, AND HOUSE SIDE RADII SHOWN ARE APPROXIMATE AND ARE TO BE REFINED BY MOLD LOFT.
11. LAST PIECE MARK USED IS 225 ON DET. 7-A

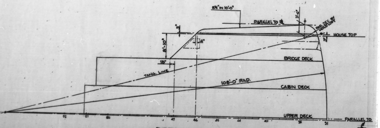




DETAIL 3-C
PILOT HOUSE LINES
SCALE: 1/8" = 1'-0"



DETAIL 3-B
PLAN VIEW OF SUPERSTRUCTURE
SCALE: 1/8" = 1'-0"



DETAIL 3-A
ELEVATION OF SUPERSTRUCTURE @ ℄ OF SHIP
SCALE: 1/8" = 1'-0"

REFERENCES

NO	TITLE	DRAWING NO
12	VENT ARRG'T. & DETS OF BRIDGE DK.	38-10-39
11	WINDOW WIPER LAYOUT WITH PARALLEL ARM	RESERVATION #1.
10	STORM RAILS	12-02-03
9	EXTERIOR SLIDING DOORS	16-02-06
8	OPEN RAILS-MAIN DECK & ABOVE	12-02-02
7	CABIN DECK BHDS.	11-07-03
6	HOUSE FRONT & HOUSE FRONT BWKS.	11-07-06
5	FOREMAST	17-01-05
4	WINDOW LIST	16-02-04
3	WELDING DETAILS.	29-06-01
2	PAINTING & DECK COVERING SCHEDULE	19-01-01
1	BRIDGE DECK & PILOT HOUSE TOP PLATING & FRAMING	11-06-11

REVISIONS

REV	ZONE	DESCRIPTION
0		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 11-07-08 REV 2 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS:
1	7,9 10	1. DET. 7-A: ADDED PC NOS 218-225. DET. 9-D1 & 10-D1: REFER 4" x 3" x 1/4" L TO DET. 7-A FOR PC NOS DET. 9-D1: ADDED PC NO 217 FOR 3" x 3/8" F.B. DET. 9-C2: REVISED TO READ DET. 9-C5. DET 7-C REVISED TO SUIT. ITEMS 1,2,3, & 4 INCORP REV. NOTICE # H-242.
	8	2. DET 7-A: ADDED DRAIN HOLE 15" AFT OF FRAME 46 & 23" OFF ℄. ADDED DRAIN SLOT REF #1. BR
		3 RELEASED RES # 1. THIS INC. REV. NOTICE H-482.
		4. DET 9-A1; 9-C1; 8-A1; 7-D; 6-D:- WELDS REV. TO SUIT A.B.S.

A S I DWG NO C7-1000-11-07-08 REV 1

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G L-772- 11-9-78	DEC. 5 1978			
1	4/25/80 DPQ	F&G 7-21-80				
2						
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
~~1~~	~~WINDSHIELD WIPERS - WAITING FOR VENDOR DWGS.~~ (3)

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY PJ DATE 9-5-78
CHECKED BY [illegible] DATE 10-78.
APVD D. Seant for W.G. SEIBERT, Jr.
APVD J.J. Murphy PROJECT MANAGER 10/23/78
APVD NOT REQUIRED VP/CHIEF ENGINEER

PILOT HOUSE

SIZE H A S I DWG NO **C7-1000**-11-07-08 REV 1 (4)
SCALE

A S I DWG NO C7-1000 11-07-08 REV 1

DISTRIBUTION

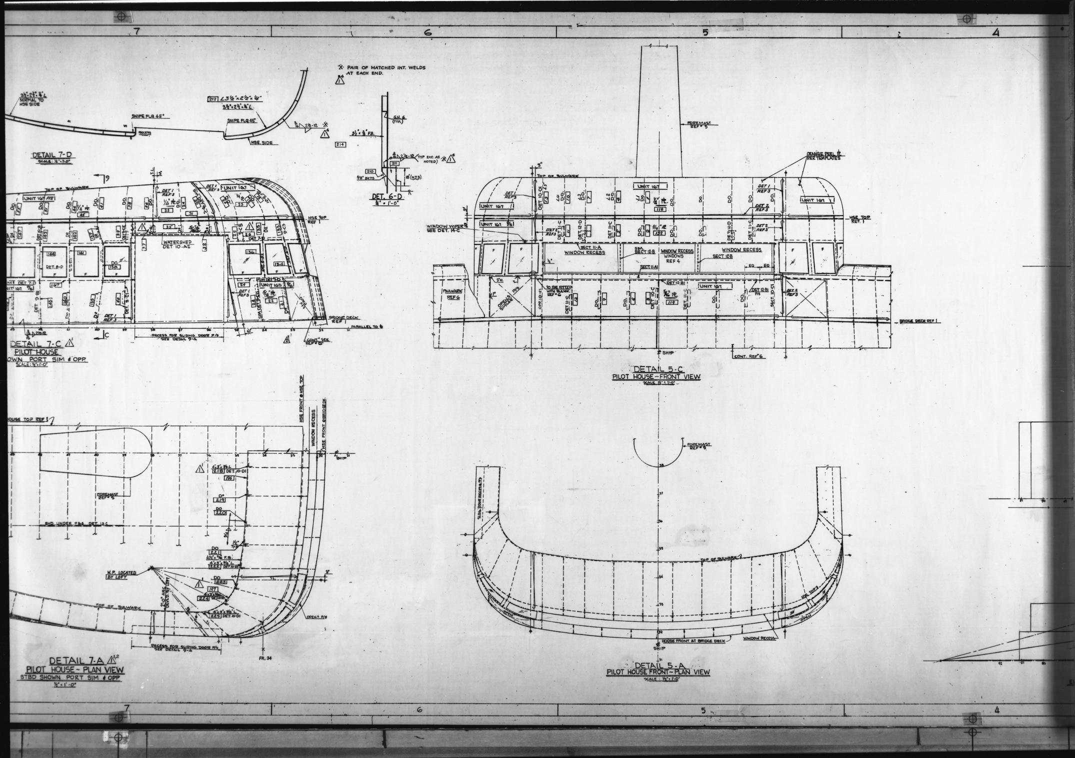
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

C7-1000 11-07-08

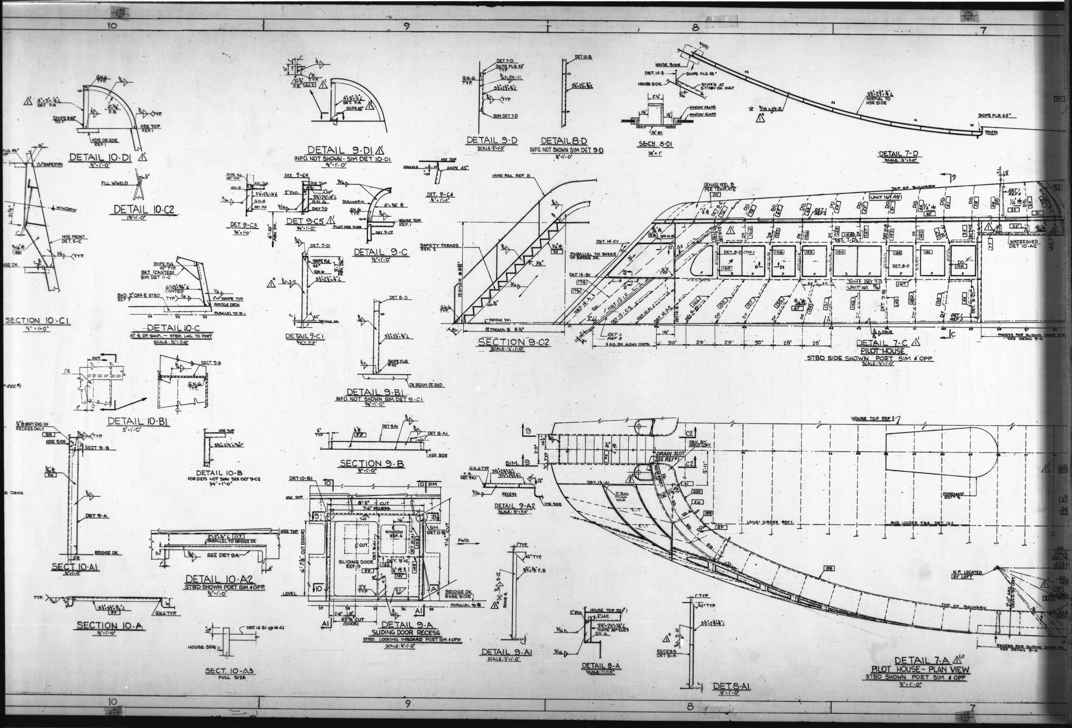
DISTRIBUTION

DEPARTMENT	REVISION 0	REVISION 1
PRODUCTION	19	30
PROD PLANNING		1
MOLD LOFT	5	6
ESTIMATING		
PROJECT MANAGER	1	1
QUALITY CONTROL		
COMPUTER APPL		
ELECTRICAL		
ENGR STANDARDS		
FILES & RECORDS	1	1
HULL	2	1
HULL COMPOSITE	1	1
DESIGN	2	1
OUTFITTING	1	1
STL TAKE OFF	1	
H V A C		
MATERIAL REQN	1	1
MECHANICAL	1	
MECH COMPOSITE		
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR	1	
ADMEASURER		
ABS (NY)	4	
ABS (NO)		4
ABS (YARD)		
USCG (NO)	2	
USCG (YARD)		1
USPHS		
OWNER (HOME)	1	1
OWNER (YARD)		
MARAD (WASH)		1
MARAD (YARD)	1	1
FRIEDE & GOLDMAN	3	3
Bouey		1
F & G (N)		1
Hoffman		1
Sig Solares		1
TOTAL	47	59
DATE OF PRINT ISSUE	[illegible]	[illegible]

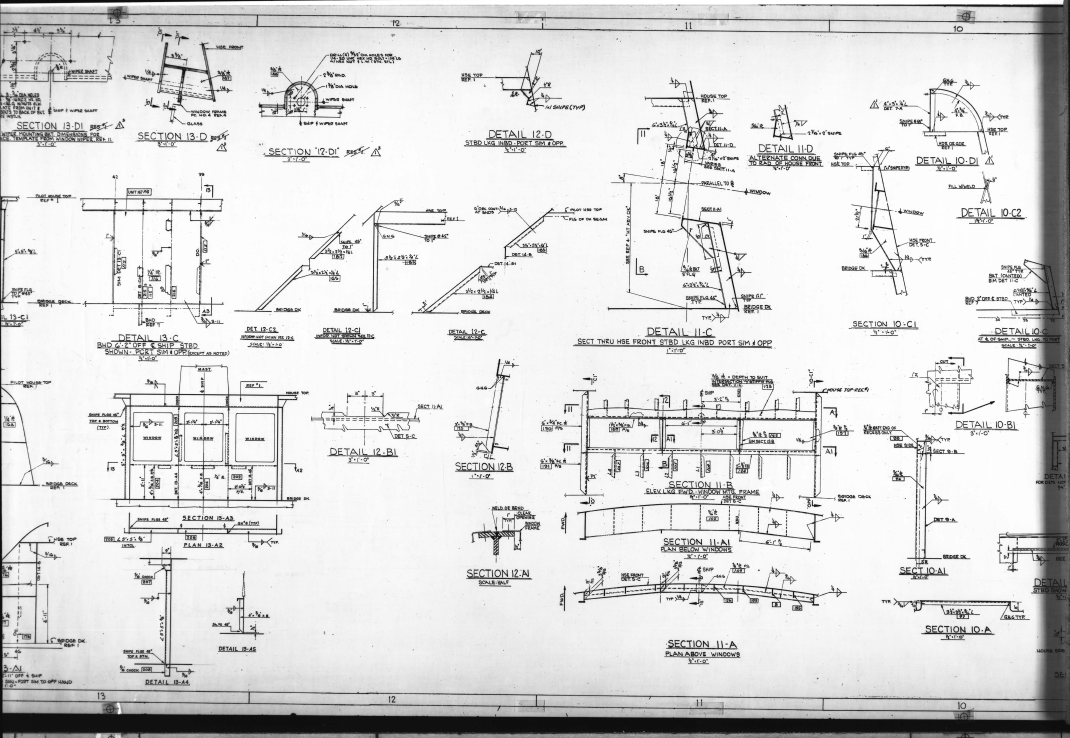
C7-1000 11-07-08

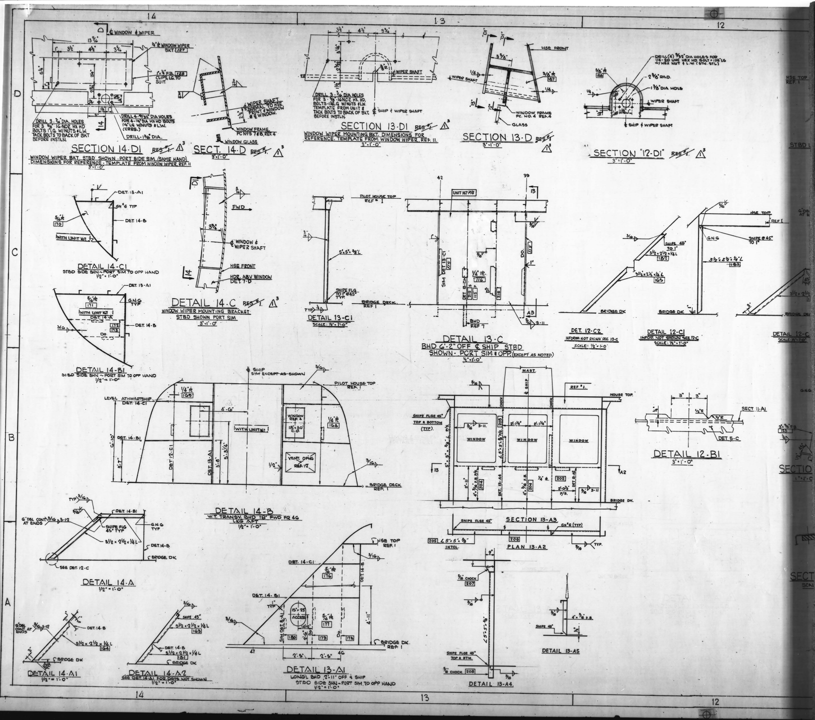


RED. 8X DATE 7-81
MA. NO. H-87 BLDR. NO. 11-07-08
FRAME NO. 2

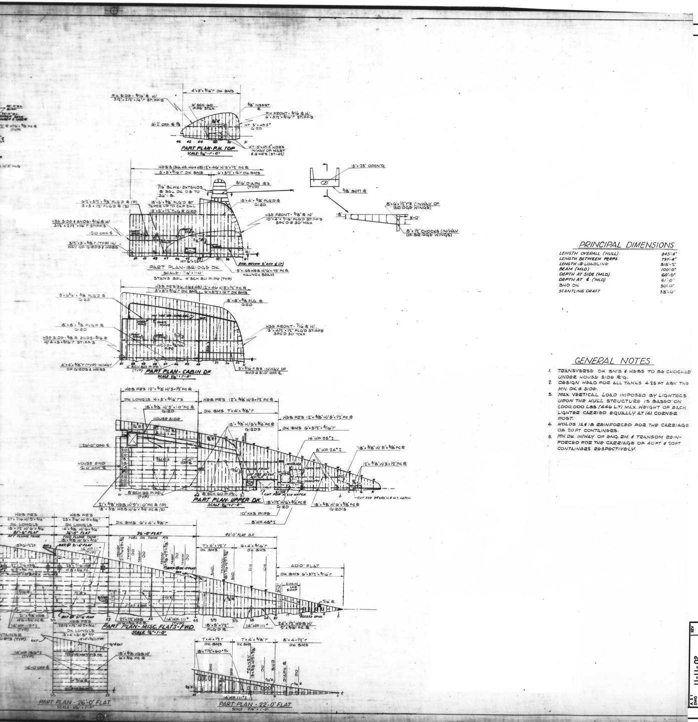


RED. 8X DATE 7-81
MA. NO. H-87 BLDR. NO. 11-07-08
FRAME NO. 3


SECTION 13-D1
SECTION 13-D
SECTION "12-D1"
DETAIL 12-D
STBD LKG INBD - PORT SIM & OPP.
DETAIL 11-D
ALTERNATE CONN. DUE TO RAD. OF HOUSE FRONT
DETAIL 10-D1
DETAIL 10-C2
DETAIL 13-C
BHD 6'-2" OFF ℄ SHIP STBD SHOWN - PORT SIM & OPP. (EXCEPT AS NOTED)
DET. 12-C2
DETAIL 12-C1
DETAIL 12-C
DETAIL 11-C
SECT THRU HSE FRONT STBD LKG INBD PORT SIM & OPP
SECTION 10-C1
DETAIL 10-C
SECTION 13-A3
PLAN 13-A2
DETAIL 12-B1
SECTION 12-B
SECTION 11-B
ELEV. LKG FWD. - WINDOW MTG. FRAME
DETAIL 10-B1
SECTION 11-A1
PLAN BELOW WINDOWS
SECTION 12-A1
SCALE: HALF
SECT 10-A1
SECTION 10-A
DETAIL 13-A5
DETAIL 13-A4
SECTION 11-A
PLAN ABOVE WINDOWS



RED. 8X DATE 7-81
MA. NO. H-87 BLDR. NO. 11-07-08
FRAME NO. 5



PRINCIPAL DIMENSIONS

LENGTH OVERALL (HULL)	845'-4"
LENGTH BETWEEN PERPS.	797'-4"
LENGTH @ LOADLINE	815'-2"
BEAM (MLD)	100'-0"
DEPTH AT SIDE (MLD)	60'-0"
DEPTH AT ℄ (MLD)	61'-0"
BHD DK	50'-0"
SCANTLING DRAFT	38'-0"

GENERAL NOTES

1. TRANSVERSE DK. BM'S & WEBS TO BE CHOCKED UNDER HOUSE SIDE P'G.
2. DESIGN HEAD FOR ALL TANKS 4.25 FT ABV. THE MN. DK @ SIDE.
3. MAX. VERTICAL LOAD IMPOSED BY LIGHTERS UPON THE HULL STRUCTURE IS BASED ON 1,000,000 LBS. (446 L.T) MAX. WEIGHT OF EACH LIGHTER CARRIED EQUALLY AT (4) CORNER POST.
4. HOLDS 1A & 1B REINFORCED FOR THE CARRIAGE OF 20 FT CONTAINERS.
5. MN. DK. IN/WAY OF ENG. RM. & TRANSOM REINFORCED FOR THE CARRIAGE OF 40 FT & 20 FT CONTAINERS RESPECTIVELY.

REVISIONS

REV	ZONE	DESCRIPTION
1		1) NOZZLE AREA OF AFT. FLUME TK REDUCED BY INCR'G THE DEPTH OF THE VERT. WEBS FROM 45" TO 55" PER J.J. McMULLEN LTR OF 1, MAR 1978
2		1) LONG'L BEAMS BET FR'S 95-101 IN/WAY OF THE SHAFT ALLEY REVISED FROM 7x4x1/2 T'S TO 8x6x1/2 T'S 2) LOCATION OF CONTAINER SUPPORT PT'S ADDED ITEMS (1-2) ADDED TO SUIT ABS APPROVAL ACTION OF 27, MAR 1978 3) REPLACED ORIGINAL TITLE BLOCK TO REFLECT ACTUAL CONTRACT JOB C7-1000
3		1) 2ND DK. PLATING OUTB'D. BET. FRS. 88 & 90 REVISED FROM 9/16" TO 1/2" PER A.B.S APPROVAL ACTION OF 20, JUNE 1978.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0			3-27-78			
1						
2						
3	7-11-78 [signature]	F&G 7-26-78				
4						
5						
6						
7						
8						
9						
10						

NO	DESCRIPTION

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY — DATE
CHECKED BY — DATE
APVD [signature] 5-17-78
APVD [signature] PROJECT MANAGER 5-19-78
APVD [signature] VP/CHIEF ENGINEER

SCANTLING PLAN

SIZE H — A S I DWG NO **C7-1000** 11-11-02 — REV 3
SCALE — **KEY PLAN**

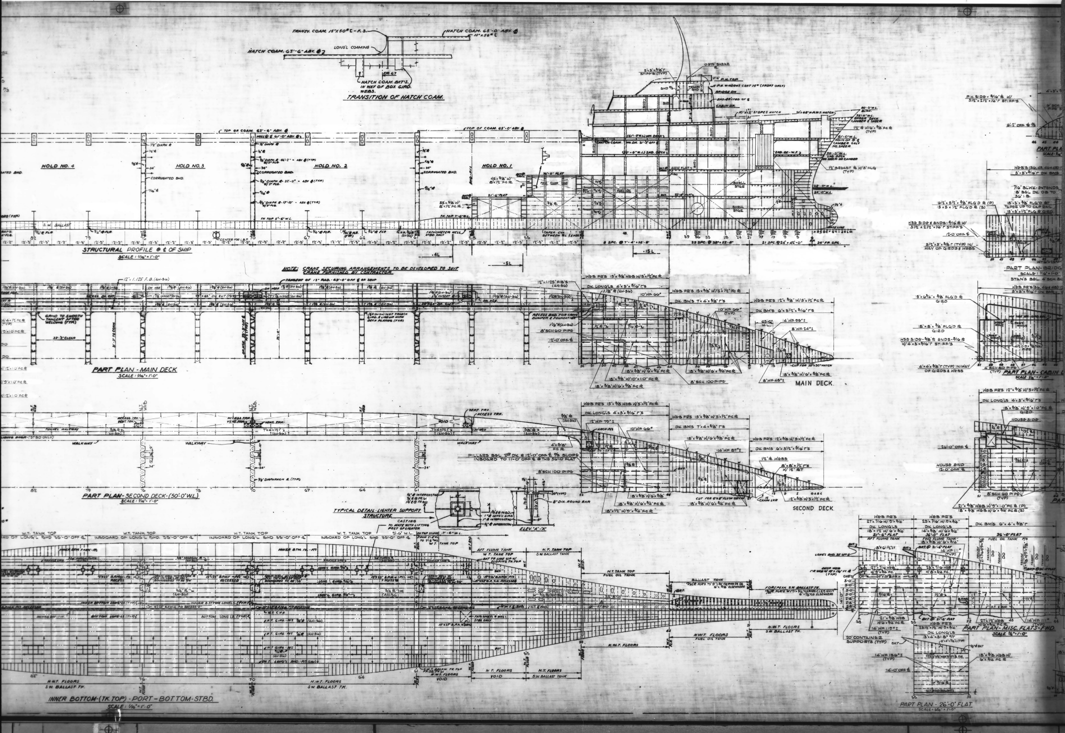
A S I DWG NO 11-11-02

DISTRIBUTION (C7-1000 11-11-02)

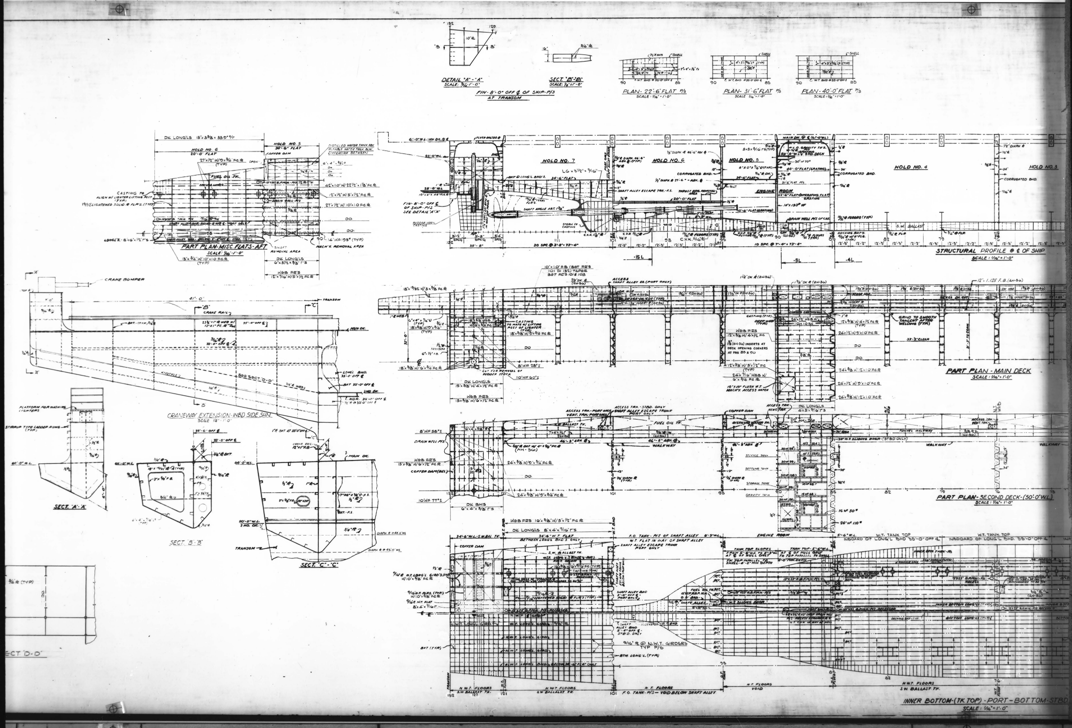
DEPARTMENT	2	3
PRODUCTION	4	4
PROD PLANNING		
MOLD LOFT	2	2
ESTIMATING		
PROJECT MANAGER	1	1
QUALITY CONTROL		
COMPUTER APPL		
ELECTRICAL	1	1
ENGR STANDARDS		
FILES & RECORDS	1	1
HULL	1	1
HULL COMPOSITE	1	1
DESIGN	1	1
OUTFITTING	1	1
STL TAKE OFF		
H V A C	1	1
MATERIAL REQN		
MECHANICAL	1	1
MECH COMPOSITE	2	1
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR		
ADMEASURER		
A B S (NY)	4	
A B S (NO)		
A B S (YARD)		1
U S C G (NO)	2	
U S C G (YARD)		1
U S P H S		
OWNER (HOME)	1	1
OWNER (YARD)		
MARAD (WASH)	2	2
MARAD (YARD)	1	1
FRIEDE & GOLDMAN	3	3
TOTAL	29	20
DATE OF PRINT ISSUE	5/19/78	7/13/78

DISTRIBUTION (C7-1000 11-11-02)

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
A B S (NY)	
A B S (NO)	
A B S (YARD)	
U S C G (NO)	
U S C G (YARD)	
U S P H S	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

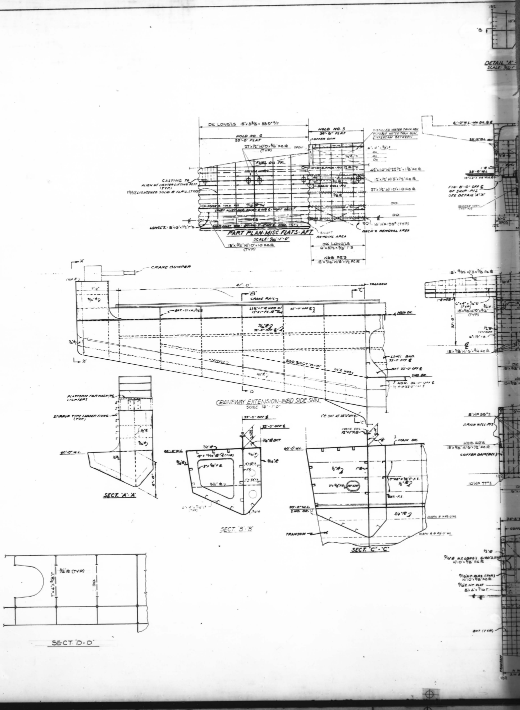


RED. 8X DATE 7-81
MA. NO. H-90 BLDR. NO. 11-11-02
FRAME NO. 2

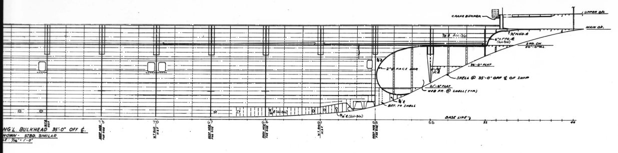


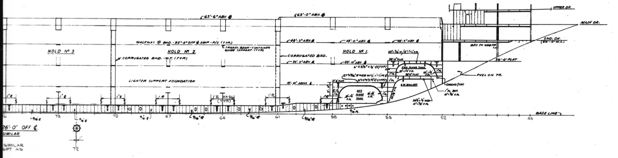
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FRAME NO. 3

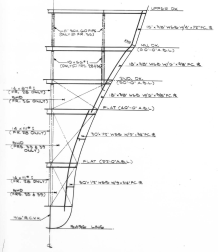
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MA. NO. H-90 BLDR. NO. 11-11-02
FRAME NO. 4



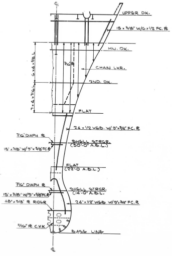
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MA. NO. H-91 BLDR. NO. 11-11-03
FRAME NO. 1



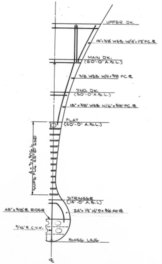




WEB FR. 33
LOOKING AFT.
FRS. 24, 28, 36 & 39 SIM



WEB FR. 13
LOOKING AFT
FRS. 9 & 17 SIM.



WEB FR. 5
LOOKING AFT
FR. 1 SIM.

REVISIONS

REV	ZONE	DESCRIPTION
1		1.) BHD 44: LOWER VERT. STIFF'S REVISED FROM 8x6x1/2 ⌐'S TO 8x6x9/16 ⌐'S TO SUIT ABS APPROVAL ACTION OF 27, MAR. 1978. 2.) REPLACED ORIGINAL TITLE BLOCK TO REFLECT ACTUAL CONTRACT JOB: C7-1000
2		1.) PARTIAL BHD. PLATING @ FR. 90 REVISED FROM 5/8" TO 1/2" PER A.B.S. APPROVAL ACTION OF 20, JUNE 1978.

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0			3-27-78			
1						
2	7-11-78	F+G 7-26-78				
3						
4						
5						
6						
7						
8						
9						
10						

NO	DESCRIPTION

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY C.B. DATE 3-2-78
CHECKED BY DATE
APVD 5-17-78
APVD PROJECT MANAGER 5-19-78
APVD VP/CHIEF ENGINEER

SCANTLING SECTIONS & DETAILS

SIZE H — A S I DWG NO **C7-1000** 11-11-03 — REV. 2
SCALE
KEY PLAN

A S I DWG NO 11-11-03

DISTRIBUTION

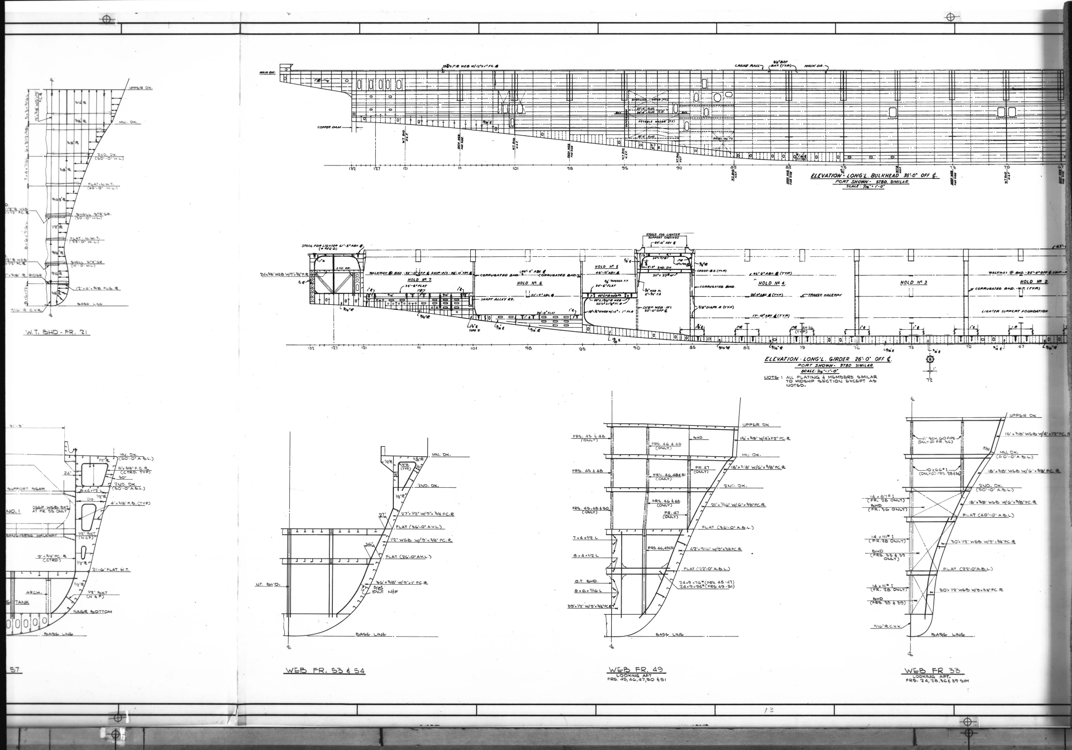
DEPARTMENT	1	2
PRODUCTION	4	4
PROD PLANNING		
MOLD LOFT	2	2
ESTIMATING		
PROJECT MANAGER	1	1
QUALITY CONTROL		
COMPUTER APPL		
ELECTRICAL	1	1
ENGR STANDARDS		
FILES & RECORDS	1	1
HULL	1	1
HULL COMPOSITE	1	1
DESIGN	1	1
OUTFITTING	1	1
STL TAKE OFF		
H V A C	1	1
MATERIAL REQN		
MECHANICAL	1	1
MECH COMPOSITE	2	1
RESEARCH & DEV		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV		
SERVICE FOUNDRY		
JOINER CONTRACTOR		
ADMEASURER		
ABS (NY)	4	
ABS (NO)		
ABS (YARD)		1
USCG (NO)	2	
USCG (YARD)		1
USPHS		
OWNER (HOME)	1	1
OWNER (YARD)		
MARAD (WASH)	2	2
MARAD (YARD)	1	1
FRIEDE & GOLDMAN	3	3
TOTAL	30	25
DATE OF PRINT ISSUE	5/19/78	7/12/78

C7-1000 11-11-03

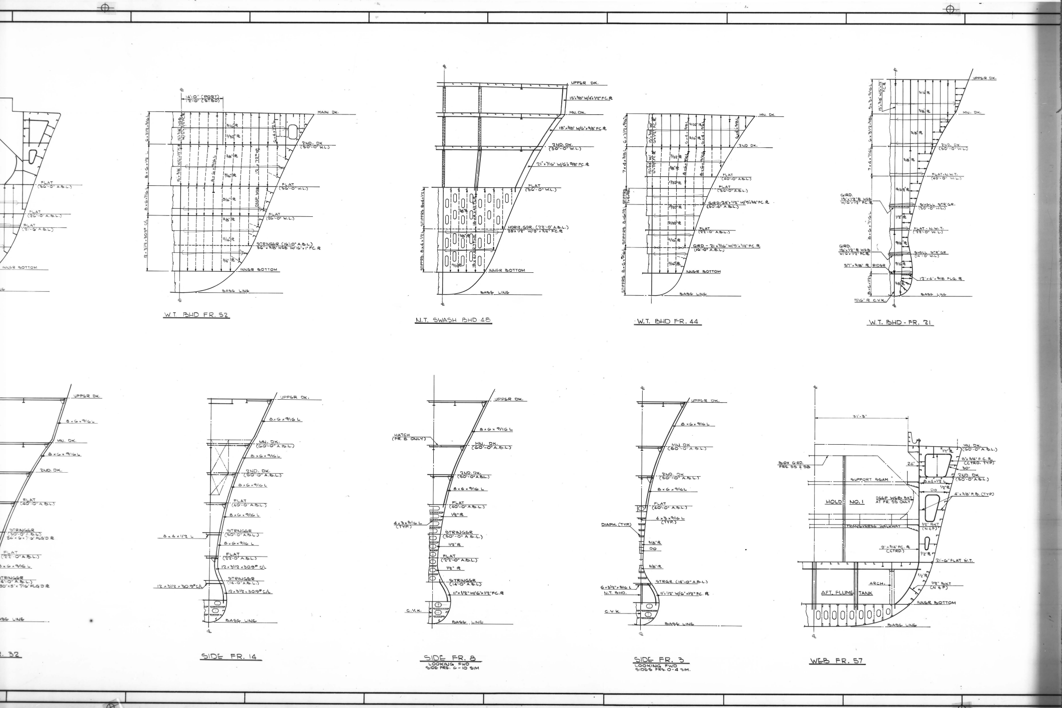
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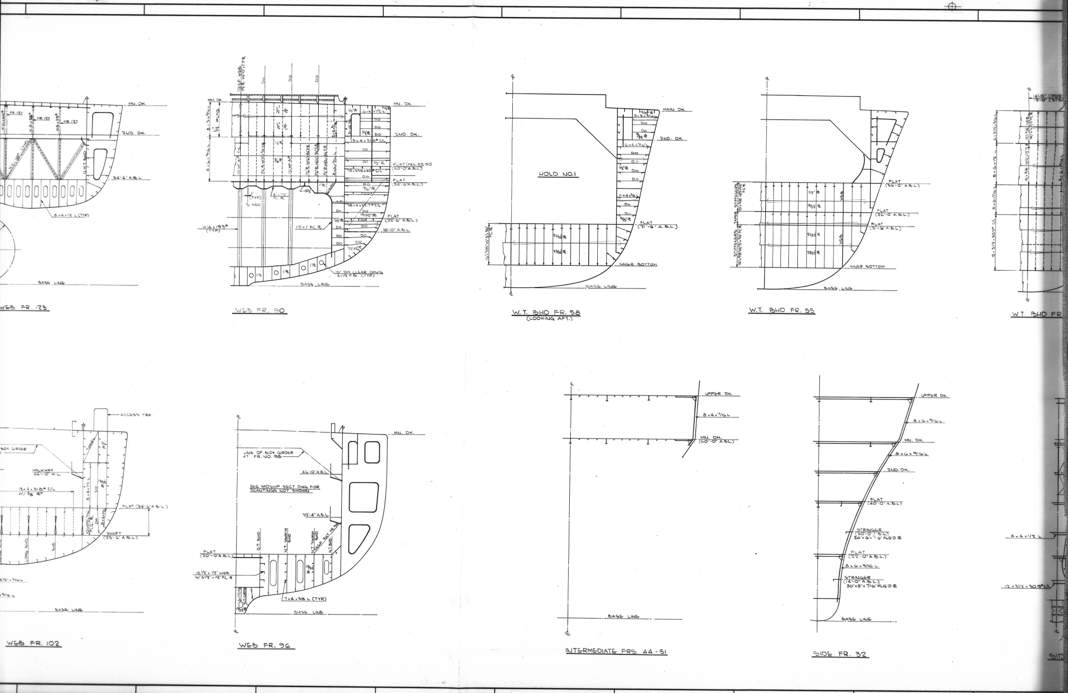
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

11-11-03 C7-1000

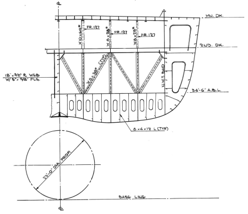


ELEVATION - LONG'L BULKHEAD 35'-0" OFF ℄
PORT SHOWN - STBD. SIMILAR.
SCALE: 1/16" = 1'-0"
COFFER DAM
MAIN DK.
CRANE RAIL
MAIN DR.
STOOL FOR LIGHTER 61'-2" ABV. ℄
STOOLS FOR LIGHTER SUPPORT CASTINGS
HOLD No 7
HOLD No 6
HOLD No 5
HOLD No 4
HOLD No 3
HOLD No 2
CORRUGATED BHD.
SHAFT ALLEY ES.
LIGHTER SUPPORT FOUNDATION
ELEVATION - LONG'L GIRDER 26'-0" OFF ℄
PORT SHOWN - STBD. SIMILAR.
SCALE: 1/16" = 1'-0"
NOTE: ALL PLATING & MEMBERS SIMILAR TO MIDSHIP SECTION EXCEPT AS NOTED.
UPPER DK.
MN. DK.
2ND. DK.
BASE LINE
W.T. BHD - FR. 21
57
WEB FR. 53 & 54
WEB FR. 49
LOOKING AFT
FRS. 45,46,47,50 & 51
WEB FR 33
LOOKING AFT
FRS. 24,28,36 & 39 SIM
13

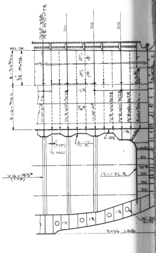

W.T. BHD FR. 52
N.T. SWASH BHD 48
W.T. BHD FR. 44
W.T. BHD - FR. 71
. 32
SIDE FR. 14
SIDE FR. 8
LOOKING FWD
SIDE FRS. 6 - 10 SIM
SIDE FR. 3
LOOKING FWD
SIDES FRS. 0 - 4 SIM.
WEB FR. 57



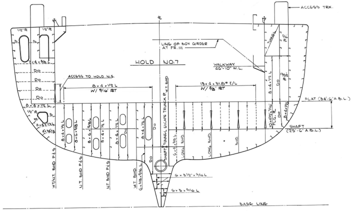
RED. 8X DATE 7-81
MA. NO. H-91 BLDR. NO. 11-11-03
FRAME NO. 4



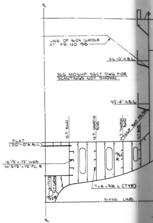
WEB FR. 123



WEB FR. 90



WEB FR. 103 WEB FR. 102



WEB FR. 96

RED. 8X DATE 7-81
MA. NO. H-114 BLDR. NO. 12-02-05
FRAME NO. 1

A S I DWG NO C7-1000 12-02-05 REV 0

GENERAL NOTES

1. ALL WELDING TO BE IN ACCORDANCE WITH A.B.S. RULES AND REF NO. 1.
2. ALL PAINTING & PROTECTION OF DISSIMILAR METAL FAYING SURFACES TO BE IN ACCORDANCE WITH REF NO 2.
3. ALL SHARP CORNERS TO BE WELL ROUNDED.
4. ⟶ INDICATES DIRECTION OF GRATING BEARING BARS.
5. SHELTERS TO BE LEVEL & PARALLEL TO BASELINE.

REVISIONS

REV	SH	DESCRIPTION

RESERVATIONS

NO	DESCRIPTION

REFERENCES

REV	NO	TITLE	DRAWING NO
	3	MAIN DECK PLATING & FRAMING AFT	11-06-04
	2	PAINTING SCHEDULE	19-01-01
	1	JOINT WELDING DETAILS	29-06-01

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO C7-1000

WATERMAN STEAMSHIP CORP — LASH

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY J.N. DATE 2/26/79
CHECKED BY Gez DATE 2-28-79
APVD B.J. Griffin 2-28-79
APVD J.J. Murphy 3/1/79 PROJECT MANAGER
APVD NOT REQUIRED VP/CHIEF ENGINEER

PANAMA CANAL PILOT SHELTERS

SIZE C A S I DWG NO C7-1000 12-02-05 REV 0
SCALE AS NTD SH NO 1 OF 6

Form C-TB-W (12-77)

PRINT DISTRIBUTION

DEPARTMENT	PREL.	REVISION 0
PRODUCTION	3	16
PROD. PLANNING		
MOLD LOFT	3	3
ESTIMATING		
PROJECT MANAGER	1	1
QUALITY CONTROL		
COMPUTER APPLS.		
ELECTRICAL	1	1
ENGR. STANDARDS		
FILES & RECORDS	1	1
HULL		
HULL COMPOSITE		
DESIGN	1	1
OUTFITTING	1	1
STL. TAKE OFF		
H. V. A. C.		
MATERIAL REQN.		1
MECH. DESIGN		
MECH. DEVELOPMENT		
MECH. COMPOSITE		
RESEARCH & DEV.		
BAYOU BLACK		
HARVEY		
INDUSTRIAL DIV.		
SERVICE FOUNDRY		
JOINER CONTRACTOR		
ADMEASURER		
Owner (H)	1	
Marad	1	
G & D (H)	1	
G & D (Y)	1	
PARTIAL ISSUE	17	25
DATE OF PRINT ISSUE	[illegible]	[illegible]

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Form C-PD/IX-C (10/76)

RED. 8X DATE 7-81
MA. NO. H-114 BLDR. NO. 12-02-05
FRAME NO. 2

Form C-RV-C (10/76)

REVISIONS		
REV.	SHT.	DESCRIPTION

REVISIONS		
REV.	SHT.	DESCRIPTION

APPROVALS						
REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0	—	LTR. L-772/11766 DTD. 3-27-74	—	—	—	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

SIZE C | A.S.I. DWG. NO. C7-1000 12-02-05
CONT. ON SH. NO. 4 | SHT. NO. 3

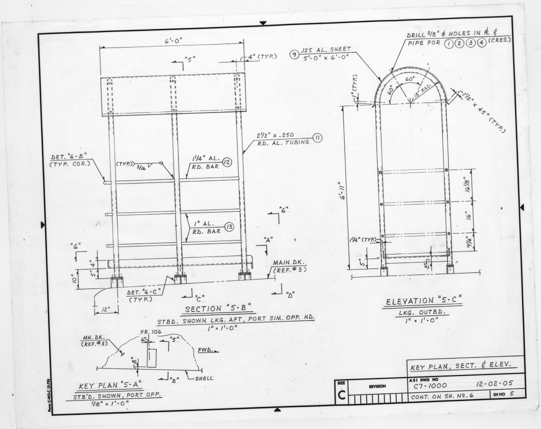
Form C-PL-C (4-78)

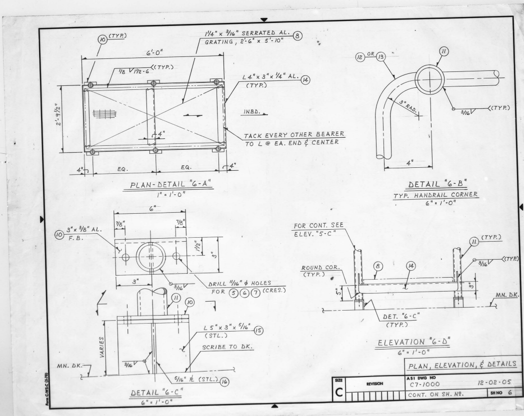
PARTS LIST (QUANTITIES FOR ONE)

ITEM NO	QTY	DESCRIPTION	MATERIAL	SPEC ORDERING DATA	REMARKS	SH
1	24	BOLT, HEX HD MACH 5/16"-18UNC-2A X 3 1/4" LG	CRES			
2	24	NUT, HEX CAP (ACORN) 5/16"-18UNC-2B				5
3	24	LOCKWASHER 5/16" (SPRING TYPE MED)				
4	24	WASHER 5/16" NEOPRENE BONDED				
5	24	BOLT, HEX HD MACH 5/8"-11UNC-2A X 1 3/4" LG				6
6	24	NUT, HEX 5/8"-11UNC-2B				
7	24	LOCKWASHER 5/8" (SPRING TYPE MED)				
8	2	GRATING, BAR, 1 1/4" X 3/16" X 2'-6" X 5'-10"	ALUMINUM	6061-T6	RELIANCE 1R4 (SERRATED) OR EQUAL	6
9	2	.125 ALUMINUM SHEET X 5'-0" X 6'-0"				5
10	12	FLAT BAR 3" X 3/8" X 6" LG				6
11	6	ROUND TUBING 2 1/2" X .25" X 20'-0" LG			ROLL & CUT TO SUIT	5,6
12	30L/F	ROUND BAR 1 1/4"				
13	60L/F	ROUND BAR 1"			CUT TO SUIT	
14	42L/F	ANGLE 4" X 3" X 1/4"				
15	12	ANGLE 5" X 3" X 5/16" X 6" LG	STEEL			6
16	12	PLATE 5/16" X 2 11/16" X 4 11/16"				

SIZE C | REVISION | ASI DWG NO C7-1000 12-02-05
CONT ON SH NO 5 | SH NO 4

RED. 8X DATE 7-81
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FRAME NO. 3





RED. 6X DATE 7-81
MA. NO. H-179 BLDR. NO. 19-01-01
FRAME NO. 1

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5-5J	GENERAL NOTES
6-6D	APPROVALS & REVISIONS
7-7B	LIST OF MATERIAL
8-8A	EXTERIOR HULL
9	SUPERSTRUCTURE
10	FITTINGS & MISC
11	MISC
12	MISC
13	DECKS & MISC
14	LIGHTER CRANE
15	TANKS
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19	VOIDS & COFFERDAMS
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21	DRAINWELLS
22	BOW THRUSTER, CHAIN LOCKER & MISC
23	HATCH COVERS
24	TRUNKS
25	CARGO HOLDS
26	MACHINERY SPACES
27	STACKS & PIPING
28	MACHINERY & EQUIP
29	MISC
30	E R TOILET & 22'-6" FLAT
31	31'-6" & 40'-0" FLATS
32	40'-0" & 36'-0" FLATS
33	40'-0" FLAT

SIZE A | REVISION 8 5 4 3 2 | A.S.I. DWG. NO. C7-1000 19-01-01 | SH NO. 3

Form A-IX-C (10/76)

PRINT DISTRIBUTION

DEPARTMENT	PREL.	1	2	3	4	5	6	7	8	9	10	11
PRODUCTION	3	16	12	12	12	16	21	21	22	26	26	30
PROD. PLANNING							1	1	1	1	1	1
MOLD LOFT												
ESTIMATING												
PROGRAM MANAGER	1	1	1	1	1	1	1	1	1	1	1	1
QUALITY CONTROL												
COMPUTER APPLS.												
ELECTRICAL												
ENGR. STANDARDS												
FILES & RECORDS	1	1	1	1	1	1	1	1	1	1	1	1
HULL												
HULL COMPOSITE												
DESIGN												
OUTFITTING	1	1	1	1	1	1	1	1	1	1	1	1
STL. TAKE OFF												
H. V. A. C.												
MATERIAL REQN.	1	1	1	1	1	1	1	1	1	1	1	1
MECH. DESIGN												
MECH. DEVELOPMENT	1	1	1	1	1	1	1	1	1	1	1	1
MECH. COMPOSITE												
RESEARCH & DEV.												
BAYOU BLACK												
HARVEY												
INDUSTRIAL DIV.												
SERVICE FOUNDRY												
JOINER CONTRACTOR			1	1	1	1	1	1	1	1		
ADMEASURER												
A.B.S. (N.Y.)												
A.B.S. (N.O.)												
A.B.S. (YARD)												
U.S.C.G. (N.O.)												
U.S.C.G. (YARD)												
U.S.P.H.S. (WASH)		1										
US PHS (LOCAL)		2	2	2	2	2	2	2	2	2	2	2
MARAD (WASH)		1	1	1	1	1	1	1	1	1	1	1
MARAD (LOCAL)		3	3	3	3	3	3	3	3	3	3	3
FRIEDE & GOLDMAN						1	1	1	1	1	1	1
F&G (Y)						1	1	1	1	1	1	4
WATERMAN										1	1	1
D. DEAMER (PURCH.)										1	1	1
Sig Solares											1	1
HADEMAN												3
MIGUEZ (P)												
PARTIAL ISSUE	16	27	29	24	26	32	36	36	43	43	45	53
DATE OF PRINT ISSUE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

SIZE A | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 2

Form A-PD-C (1/77)

RESERVATIONS

REV	NO	TITLE	DRAWING NO
3[1]	1	~~DIELECTRIC SHIELD FOR CATHODIC PROTECTION PENDING DEVELOPMENT~~	
7[1]	2	~~ADDITIONAL VERMICULITE AREAS PENDING DEVELOPMENT~~	
7[2]	3	~~SAFETY MARKINGS PENDING DEVELOPMENT~~	
	4		
	5		
	6		
		SEE SHEET NO 4	

A S I DWG NO C7-1000 19-01-01 REV 11

REFERENCES

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY J.G. DATE 3-17-78
CHECKED BY G.A.J. DATE 3-22-78
APVD [signature] 3-23-78
APVD [signature] PROJECT MANAGER 3-23-78
APVD [signature] VP/CHIEF ENGINEER

PAINTING SCHEDULE

SIZE A | A S I DRAWING NO C7-1000 19-01-01 | REV 11
SCALE NONE | KEY PLAN | SH NO 1 OF 62

Form A-TB-W (12-77)

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Form A-WS-C (1/77)

REFERENCES

REV.	NO.	TITLE	DRAWING NO.	
1[1]	1	DECK COVERING SCHEDULE	C7-1000	14-01-05
	2	SHIPS NAME, HAILING PORT, HULL MARKING & OWNER'S INSIGNIA		28-04-01
	3	L.O. SERVICE SYSTEM TURBINE THROTTLE VALVE L.O. CONT. PLANS & ELEVATIONS		45-01-11
	4	DIMENSIONAL & FURNITURE ARRGT — BRIDGE & CABIN DECK		33-01-01 SK 1
	5	UPPER DECK		33-01-02 SK 2
	6	MAIN DECK		33-01-03 SK 3
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	8	ARRANGEMENT SECOND AND MAIN DECKS	CONTR PLAN	13-03-13 SK 013
	9	INBOARD PROFILE AND DECK ARRANGEMENTS	5396	1-3-2
5[1]	10	SHIP'S NAMEBOARD & BUILDERS NAMEPLATE	C7-1000	28-04-02

SIZE A | REVISION 5 1 | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 4

Form A-RF-C (10/76)

GENERAL NOTES

1. PREPARATION OF, AND PRIMING OF STEEL PRIOR TO FABRICATION, ASSEMBLY AND ERECTION SHALL BE ACCOMPLISHED BY AUTOMATIC AND/OR MANUAL BLASTING AND APPLICATION OF 1.0 MIL OF SYM. #1. ALL STEEL PLATE AND STRUCTURALS WITH A CONFIGURATION SUITABLE FOR BLASTING BY MACHINE WILL BE PROCESSED AUTOMATICALLY.

2. IN GENERAL, THE STEEL WILL BE GIVEN A COAT OF PRE-ERECTION PRIMER IN ACCORDANCE WITH G.N. #1, HOWEVER IN SPECIAL APPLICATIONS SURFACES MAY BE PREPARED FOR PAINTING PRIOR TO OR AFTER ERECTION. IN GENERAL, THE PRE-ERECTION PRIMER, SYM. #1, SHALL BE BLASTED OFF IN THE SURFACE PREPARATION OF THE BLOCK ASSEMBLIES. PRE-ERECTION PRIMER, SYM. #1, IN GOOD CONDITION OR TOUCHED UP TO GOOD CONDITION ON STEEL SURFACES NOT BLASTED AFTER FABRICATION CAN BE RETAINED.

3. STRUCTURAL SHAPES WITH A VERTICAL DIMENSION GREATER THAN 6" OR A CONFIGURATION NOT SUITABLE FOR AUTOMATIC BLASTING MAY BE PICKLED PRIOR TO MANUAL BLASTING TO WHITE METAL SP-5.

   (A) IMMERSE SHAPES IN A PICKLING SOLUTION BETWEEN 20 AND 75 MINUTES. THIS SOLUTION SHALL CONSIST OF 5 GALS. OF 66° BAUME SULFURIC ACID TO 95 GALS. OF WATER, INHIBITED WITH PICKLING INHIBITOR.

   (B) AFTER PICKLING, SHAPES SHALL BE RINSED IN A FRESH WATER CIRCULATING BATH MAINTAINED BETWEEN 170° AND 180° F.

   (C) AFTER RINSING SHAPES SHALL BE BLASTED TO WHITE METAL AND GIVEN AN AVERAGE 1 MIL DRY COAT OF SYM. #1.

4. AFTER COMPLETION OF SUB ASSEMBLIES, ALL WELD SLAG, SURFACE CONTAMINATIONS, SCARS, ETC. SHALL BE REMOVED BY MANUAL BLASTING, OR POWER TOOL CLEANING TO RESTORE THEM TO A CONDITION SUITABLE FOR APPLICATION OF THE COATINGS REQUIRED BY THIS SCHEDULE. SYM. #1 SHALL NOT BE POWER TOOL CLEANED, BUT MUST BE SWEPT BLASTED TO REMOVE CONTAMINATION PRIOR TO APPLICATION OF SYMS. #2 OR #30.

5. WHERE BLASTING IS PERFORMED, THE CONTRACTOR SHALL PROTECT, MASK OR SEAL OFF SEA VALVES, MACHINERY AND EQUIPMENT AND ALL OPENINGS AS NECESSARY TO PREVENT DAMAGE BY ABRASIVE GRAINS OR DROSS.

6. ALL PAINTING OF BOTTOM OTHER THAN MINOR TOUCH-UP SHALL BE COMPLETED PRIOR TO LAUNCHING. IN ORDER TO EFFECT 100 PERCENT COATING, KEEL BLOCKS, BILGE BLOCKS AND SHORING SHALL BE SHIFTED TO ACCOMPLISH SAME. THE AREAS IN WAY OF THE ABOVE SHALL BE PROTECTED FROM COMPONENTS IN THE WOOD BLOCKING BY MEANS OF ALUMINUM FOIL, AT LEAST 0.002 INCH THICK OR AN ALTERNATE PROTECTION OF HEAVY OILED PAPER.

SIZE A | REVISION | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 5

Form A-GN-C (10/76)

GENERAL NOTES

7. EXCEPT FOR THE MINIMUM CLEANING REQUIREMENTS SPECIFIED HEREIN, ALL APPLICATIONS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, PARTICULARLY IN WAY OF ZINC SILICATE, EPOXY OR OTHER CATALYZED COATINGS.

8. UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE MANUFACTURER, PAINT AND OTHER COATING MATERIALS ARE NOT TO BE THINNED WITH SOLVENT, OR ALTERED IN ANY MANNER BY THE CONTRACTOR, NOR APPLIED OVER MOIST OR OTHERWISE QUESTIONABLE SURFACES.

9. WHERE NECESSARY, SCUPPERS SHALL BE TEMPORARILY SEALED OFF AND OVERBOARD DRAINS PLUGGED OR LED CLEAR, SO THAT THE HULL WILL REMAIN DRY DURING THE APPLICATION OF PAINT.

10. SYM. #51 IS TO BE USED AS A REPAIR PRIMER, WHICH MUST BE OVER-COATED, ON AREAS THAT HAVE BEEN BURNED OR SIMILARLY DAMAGED, OR AS APPROVED BY THE OWNERS REPRESENTATIVE. SYM. #51 IS TO BE USED ON INTERIOR SURFACES ONLY.

11. NO PRIMING, INTERMEDIATE OR FINAL COAT IS TO BE APPLIED IN ANY VOID OR TANK UNTIL THE SURFACE IS ADEQUATELY PREPARED AND STEPS TAKEN TO INSURE THAT THE SURFACE IS COMPLETELY FREE OF CON-DENSATION. TIME BETWEEN COATS SHALL NOT EXCEED MINIMUM AND/OR MAXIMUM INTERVALS AS RECOMMENDED BY THE COATING MANUFACTURER.

12. IN THE MACHINERY SPACES, THE FINAL COAT OF PAINT MAY BE APPLIED PRIOR TO, OR AFTER, TRIALS. ALL SURFACES WHICH BECOME SOILED OR OTHERWISE DAMAGED, SHALL BE CLEANED AND REPAIRED PRIOR TO DELIVERY OF THE SHIP.

13. VARNISHED WORK SHALL BE SANDED BETWEEN COATS.

14. PIPING OR LAGGING, WHERE EXPOSED TO VIEW, AND COMPRESSED GAS CYLINDERS SHALL BE STENCILED FOR IDENTIFICATION.

15. STANDARD SAFETY COLORS SHALL BE USED TO DISTINGUISH HATCH OPENINGS, MACHINERY AND FITTINGS WHICH PRESENT A HAZARD.

16. ALL FIXTURES, ADJACENT SURFACES, LABEL AND NAMEPLATES, GASKETS, THREADS, WORKING PARTS, VALVES, ELECTRICAL EQUIPMENT, ETC., SHALL BE PROPERLY PROTECTED DURING THE PREPARATION OF, AND PAINTING OF, AND ON COMPLETION OF THE FINAL COAT, ALL PAINT AND SMUDGES SHALL BE REMOVED FROM GLASS HARDWARE, PLUMBING AND ELECTRICAL FIXTURES, DECK COVERING, GREASE FITTINGS, ALL MOVING PARTS, ETC., PRIOR TO TESTS AND TRIALS.

17. WHERE NOT OTHERWISE STATED, ALL PARTS OR SPACES WHICH ARE NORMALLY PAINTED SHALL BE CLEANED AND PAINTED TO CONFORM TO THE SURROUND-INGS OR TO COMPARABLE PARTS OR SPACES.

GENERAL NOTES

18. WHERE MINIMUM DRY FILM THICKNESS (MDFT) REQUIREMENTS ARE SPECIFIED, THEY SHALL HAVE PRECEDENCE OVER THE MINIMUM NUMBER OF COATS SPECIFIED. MANUFACTURER'S MAXIMUM DRY FILM THICKNESS REQUIREMENTS PER COAT SHALL NOT BE EXCEEDED. THE READINGS SHALL BE MADE WITH A GENERAL ELECTRIC, ELCOMETER, MICROTEST, OR OTHER APPROVED GAUGE. THICKNESS REQUIREMENTS OF EACH SPECIFIED COAT SHALL BE MAINTAINED BY USE OF WET GAUGE DURING APPLICATION. SUBSEQUENT COATS SHALL BE APPLIED AS NECESSARY TO BUILD UP TO SPECIFIED THICKNESS.

19. WHERE ABRASIVE BLASTING IS REQUIRED, HEREIN, IT SHALL BE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS OF THE STEEL STRUCTURE PAINTING COUNCIL:

SP-6	"COMMERCIAL" BLASTING
SP-10	"NEAR WHITE" BLASTING
SP-5	"WHITE METAL" BLASTING

20. AFTER PICKLING OR ABRASIVE BLASTING, CLEARANCE SHALL BE OBTAINED FROM THE OWNER'S REPRESENTATIVE PRIOR TO APPLICATION OF COATING MATERIALS. ACCEPTANCE OF PAINTING SHALL BE BY OWNER'S REPRESENTATIVE.

21. PRIOR TO THE APPLICATION OF COATING MATERIALS, ALL SURFACES SHALL BE FREE FROM FOREIGN MATTER SUCH AS: CRAYON MARKS, DIRT, DUST, GREASE, HEAT AND MILL SCALE, OIL, RESIDUAL ABRASIVE FROM BLASTING, RUST, SALT DEPOSITS, WELD SPATTER, ETC. FOR METAL SURFACES REQUIRED TO BE PAINTED, OR WHERE PAINTING IS PERMITTED IN ORDER TO AVOID MASKING, THE FOLLOWING SHALL APPLY:

ALUMINUM*	ALODINE, ALUMIPREP, OR EQUAL
BRASS, BRONZE, COPPER, STAINLESS STEEL	THROUGHLY CLEAN WITH SOLVENT
GALVANIZED METAL*	GALVAPREP, LITHOFORM, OR EQUAL

*WHERE THE ITEM OR SURFACE TO BE CLEANED CONTAINS CREVICES WHICH COULD RETAIN HARMFUL ACIDS OR SALTS, SOLVENT CLEANING, FOLLOWED BY THE APPLICATION OF PRETREATMENT (WASH) PRIMER, OR OTHER ACCEPTABLE PRIMERS, SHALL BE EMPLOYED, CARE SHOULD BE EXERCISED IN APPLYING WASH PRIMER IN INTERIOR OR CONFINED AREAS.

22. STEEL-WEATHER EXPOSED SURFACE TO BE ABRASIVE BLASTED TO "WHITE METAL: SSPC-SP-5 IN AREAS REQUIRING AN INORGANIC ZINC SILICATE OR A CATALYZED TYPE OF COATING. ELSEWHERE, SURFACES TO BE BLASTED TO NEAR WHITE METAL", SSPC-SP-10.

NOTE: THE TERM "WEATHER EXPOSED STEEL", AS EMPLOYED IN THIS SECTION, MEANS ALL STEEL FROM KEEL TO THE TOPMOST AREA EXCEPT GALVANIZED AND STAINLESS STEEL: INTERIORS OF MOTORS, AND MASTS,

GENERAL NOTES

22. (CONT'D)
ANCHOR CHAIN AND SURFACES OILED OR GREASED, WHICH, AFTER ERECTION OR INSTALLATION, ARE EXPOSED DIRECTLY OR INDIRECTLY TO THE WEATHER. THE TERM INCLUDES DECK MACHINERY, DAVITS, EXTERIORS OR MOTOR HOUSINGS, PIPING AND HANGERS, AND SIMILAR INSTALLATIONS: INTERIORS OF FOUNDATIONS, PEDESTALS, AND EQUIP-MENT HOUSINGS WHICH HAVE OPENINGS TO THE ATMOSPHERE: INTERIORS OF WEATHER DECK VENTILATION DUCTS FROM A DISTANCE OF ABOUT 6 TO 8 FEET FROM OPENINGS: AND AREAS BETWEEN THE BACKS OF CONTROL BOXES AND SUPERSTRUCTURE IF NOT SEAL WELDED AND INSIDE ALL GOOSENECK VENTS (INCLUDING FLANGES).

23. STEEL-INTERIOR

STEEL EXCEPT AS INDICATED BELOW:	PICKLE, OR COMMERCIAL BLAST SSPC-SP-6
INTERIORS OF LUBE OIL TANKS INCLUDING STIFFENERS	REMOVE PRE-ERECTION PRIMER AND REMOVE WELD SLAG TO AN EQUIVA-LENT GRAY METAL FINISH PRIOR TO FILLING
AREAS REQUIRED TO RECEIVE AN INORGANIC ZINC SILICATE, OR A CATALYZED EPOXY TYPE OF FINISH COATING SYSTEM	WHITE METAL BLAST, SSPC-SP-5
MACHINERY UNITS	COMMERCIAL PRACTICE IF NOT SPECIFIED OTHERWISE HEREIN
AREAS REQUIRED TO HAVE A DECK COVERING	POWER TOOL
(4/2) (7/5) PIPING (OTHER THAN AS LISTED IN GENERAL NOTES 43 & 44 AND SHT 27, LINE 7)	ALL PIPING SHALL BE PICKLED AND PRIMED WITH SYM #31 EXCEPT THE FOLLOWING WHICH SHALL RECEIVE NO COATING: (A) PIPING IN LUBE OIL TANKS (B) HEATING COILS IN LUBE OIL TANKS (PICKLE OUTSIDE ONLY) (C) FUEL OIL PIPING (HAND CLEANED) (D) GALVANIZED PIPING (E) COPPER AND CU-NI PIPING (F) STAINLESS STEEL PIPING (G) ALL OTHER NON-FERROUS OR NON-CORROSIVE PIPING

GENERAL NOTES

24. WEATHER EXPOSED AND INTERIOR STEEL:

AFTER CLEANING, A SUFFICIENT AMOUNT OF PAINT OF THE TYPES SPECIFIED, SHALL BE APPLIED, TO PREVENT THE STEEL FROM RUSTING. ALL PAINTED AREAS SUBSEQUENTLY DAMAGED BY FABRICATION. WELDING, ABRASION, RUSTING, ETC., SHALL BE RE-PREPARED, FEATHERED-IN AND TOUCHED-UP BEFORE APPLICATION OF THE SUCCEEDING COAT OF PAINT. GOUGES, DENTS, ETC., WHERE EXPOSED TO VIEW SHALL BE SMOOTHED WITH APPROVED GLAZING COMPOUND, BUT IT SHALL NOT BE USED IN LIEU OF FAIRING, OR CRINDING OF WELDS WHERE REQUIRED NOR IN WAY OF ZINC SILICATE WHERE MANUFACTURER'S DIRECTIONS SHALL BE FOLLOWED.

WHERE SURFACES HAVE BEEN CLEANED AND PRIMED PRIOR TO ERECTION, ALL WELDED JOINTS RESULTING FROM ERECTION SHALL BE BLASTED.

PRIMED AND/OR PAINTED AREAS WHICH SHOW RUST OR OTHER DETERIORATION SHALL BE SANDBLASTED OR DISC SANDED AS REQUIRED TO SUIT SERVICE AND/OR COATING OR SUCH SPACE PRIOR TO APPLYING SUBSEQUENT OR FINAL COATS. ALL PAINTING SHALL BE COMPLETED IN EVERY RESPECT WITH FINAL COATS APPLIED JUST PRIOR TO DELIVERY WHERE POSSIBLE.

25. FAYING SURFACES

FAYING SUFACES OF STEEL TO STEEL, EXCEPT WHEN FORMED BY CONTINUOUS WELDING, SHALL RECEIVE TWO COATS OF SYMBOL #31 PRE-ERECTION PRIMER OF EACH FAYING SURFACE PRIOR TO CLOSURE. STEEL FAYING SURFACES IN OIL TANKS NEED NOT BE PAINTED.

FAYING SURFACES OF ALUMINUM TO ALUMINUM, OR OF DISSIMILAR METALS, SHALL BE PROTECTED FROM CORROSION BY APPLICATION OF ONE COAT OF PRETREATMENT PRIMER AND ONE COAT OF SYMBOL #31 PRIMER TO EACH FAYING SURFACE.

26. ANCHOR CHAIN

ANCHOR CHAIN SHALL BE MARKED AND PAINTED IN ACCORDANCE WITH MA-SPEC. NO. MAP-49B. CHAINS TO BE SUPPLIED WITH ASPHALT VARNISH BY VENDOR AND OVERCOATED WITH FISH OIL BY ASI PRIOR TO STOWING ON SHIP. (2/4)

27. AREAS IN WAY OF KEEL BLOCKS, BILGE BLOCKS, AND SHORING TO BE COMPLETELY PAINTED PRIOR TO LAUNCHING. PROPELLER MAY RECEIVE A TEMPORARY GREASE APPLICATION TO RETARD FOULING.

28. DRAFT NUMERALS BELOW LIGHT LOAD LINE, AFTER ANTI-FOULING, SHALL RECEIVE TWO COATS WHITE.

29. ANTI-FOULING PAINT TO BE APPLIED WITHIN THE TIME LIMIT RECOMMENDED BY PAINT MANUFACTURER PRIOR TO RENDERING SHIP WATERBORNE.

GENERAL NOTES

30. GALVANIZED CHAIN RAILS, TREADED WALKWAYS, ANODIZED ALUMINUM, ALUMINUM, COPPER BEARING METALS, GALVANIZED METAL, AND STAIN-LESS STEEL, IF NOT INTENDED TO BE SELF-DECORATIVE SHALL BE PRIME-COATED TO APPROVAL AND RECEIVE TWO FINISH COATS.

31. DRAFT NUMERALS ABOVE LIGHT LOAD LINE, BULKHEAD LOCATIONS AT FULL LOAD WATER LINE, PLIMSOLL MARKINGS, SHIP'S NAME AND HAILING PORT, AFTER PRIMING SHALL RECEIVE TWO FINISH COATS, AS APPROVED.

32. STEEL SHAFTING EXPOSED TO SEA WATER SHALL RECEIVE FIBERGLASS, MIL-R-23461.

33. INTERIOR OF PIPE TUNNELS IN DISTILLED WATER TANKS ARE TO BE FILLED WITH PLASTIC FOAM.

34. RUDDER, RUDDER HORN, FORE PEAK VOIDS, BILGE KEEL AND TRANSOM FINS ARE TO BE FILLED WITH PLASTIC FOAM.

35. (8/3) BOX FOUNDATIONS IN LAUNDRY SPACES ~~AND SIMILAR VOIDS~~ ARE TO BE FILLED WITH PLASTIC FOAM.

36. APPLY TWO COATS OF SYMBOL #31 TO STEEL BEHIND INSULATION, JOINER WORK, MARINITE, ETC.

37. VERMICULITE SHALL BE APPLIED AS FOLLOWS:

(A) APPLY TWO COATS OF SYMBOL #31.
(B) APPLY ONE COAT OF SYMBOL #49.
(C) WHILE SYMBOL #49 IS STILL WET APPLY SYMBOL #48.
(D) APPLY FINISH COATS PER SCHEDULE

(1/1) ADDITIONAL AREAS TO RECEIVE VERMICULITE ARE SHOWN ON SHEETS: 56-62

38. A 6 INCH WIDE, FAA ORANGE SYM. #42 SAFETY STRIPE SHALL BE PAINTED AROUND EACH INTERIOR HATCH OPENING AT A DISTANCE OF 36 INCHES FROM THE OPENING.

39. (3/2) ~~AREAS RECEIVING TEXACO FLOATCOAT SHALL BE CLEANED AS FOLLOWS: SCALE ALL WELDS AND REMOVE ALL DIRT AND DEBRIS BEFORE APPLYING SYM. #60 BY THE SPRAY-ON METHOD.~~

40. AREAS IDENTIFIED IN GN 22 AS WEATHER EXPOSED ARE TO BE FULLY PAINTED, INCLUDING FINISH COATS, WITH THE COATING SYSTEM IN THE IMMEDIATE VICINITY.

41. FOR EXTERIOR OF SHIP SYM #15 TO BE USED IN LIEU OF SYM #31. (2/5)

GENERAL NOTES

42. DIELECTRIC SHIELD INSTALLATION

ANODE VENDOR REPRESENTATION IS REQUIRED AND MUST BE PRESENT PRIOR TO AND DURING THE APPLICATION OF THE DIELECTRIC SHIELDS AND THE INSTALLATION OF IMPRESSED CURRENT ANODES.

FOR LOCATIONS OF 14 FOOT ANODES TYPE A SEE ASI DRAWINGS C7-1000 11-01-01 AND 11-01-02.

FOR LOCATIONS OF ELLIPTICAL ANODES TYPE B SEE ASI DRAWING C7-1000 11-01-02.

MATERIAL MIXING AND APPLICATION DETAILS
(ALL SHIELD MATERIALS SUPPLIED BY ANODE VENDOR.)

1. EPOXY FILLER (INTERNATIONAL RED HAND OR DIAMOND "K")-EXTREMELY TOUGH TWO-PACK SOLVENTLESS EPOXY FILLER.

THE MATERIAL SHOULD BE MIXED WITH ONE (1) PART BASE TO ONE (1) PART CURING AGENT BY VOLUME UNTIL A UNIFORM COLOR IS ACHIEVED. (DEPENDING ON EPOXY FILLER, THE COLOR WILL BE EITHER DARK PINK OR GREY.) ON MIXING THE TWO COMPONENTS TOGETHER, ONLY SUFFICIENT MATERIAL FOR 30 MINUTES SHOULD BE MIXED AS THE POT LIFE IS 45 MINUTES. THE MATERIAL IS HARD DRY IN ABOUT THREE (3) HOURS AFTER APPLICATION.

(5/1) NOTE: DO NOT ATTEMPT TO THIN MATERIAL. THINNER IS TO BE USED FOR CLEAN-UP ONLY.

APPLICATION SHOULD BE ACCOMPLISHED USING A KNIFE, SPATULA OR TROWEL TO AN APPROXIMATE THICKNESS OF 1/4 INCH (6 mm). APPLI-CATION SHOULD BE AS SMOOTH AS POSSIBLE, BUT SANDING OR "FEATHER EDGING" IS NOT TO BE DONE.

2. METABOND ALUMINUM EPOXY PAINT - TWO-PACK EPOXY BASED MATERIAL PIGMENTED WITH ALUMINUM.

THE MATERIAL SHOULD BE MIXED IN A RATIO OF FOUR (4) PARTS BASE TO ONE (1) PART REACTOR. THE POT LIFE OF THE MIXTURE IS EIGHT (8) HOURS AND ONLY SUFFICIENT MATERIAL FOR USE IN THE ALLOWABLE TIME SHOULD BE MIXED. THE MATERIAL IS SURFACE DRY IN FOUR (4) HOURS AND MAY THEN BE OVERCOATED.

NOTE: DO NOT ATTEMPT TO THIN MATERIAL. THINNER IS TO BE USED FOR CLEAN-UP ONLY.

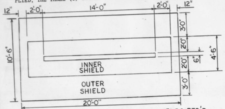
APPLICATION OF THIS MATERIAL SHOULD BE BY AIRLESS SPRAY. THE MATERIAL SHOULD BE APPLIED AT A RATE OF 20 SQUARE YARDS (16.7 SQUARE METERS) PER GALLON IN ORDER TO OBTAIN A DRY FILM THICK-NESS OF 100 MICRONS (4 MILS).

RED. 6X DATE 7-81 MA. NO. H-179 BLDR. NO. 19-01-01 FRAME NO. 3

GENERAL NOTES

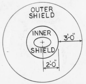
2. (CONT'D)

(B) SECOND, THIRD AND FOURTH COATING-FROM 2 INCHES (5 mm) INSIDE THE OUTER EDGE OF THE INNER SHIELD TO THE OUTSIDE LIMIT OF THE FULL DIELECTRIC SHIELD SHALL BE COATED WITH THREE (3) APPLICATIONS OF BITOXY TO A TOTAL THICKNESS (3 COATS) OF APPROXIMATELY 500 MICRONS (20 MILS). IF BLACK AND BROWN BITOXY ARE SUPPLIED, THE FIRST BITOXY COATING SHALL BE BLACK, THE SECOND BITOXY COATING SHALL BE BROWN AND THE THIRD BITOXY COATING SHALL BE BLACK. IF ONLY ONE COLOR OF BITOXY IS SUPPLIED, THE THREE (3) BITOXY COATINGS SHALL BE OF THE SAME COLOR.



SHIELD AREA FOR TYPE A ANODE - 6 SHIELDS REQ'D

SHIELD AREA FOR TYPE B ELLIPTICAL ANODE - 2 SHIELDS REQ'D



SIZE	REVISION	ASI DWG NO	
A	3	C7-1000 19-01-01	SH NO 5I

Form A-GN-C (5-78)

GENERAL NOTES

NOTE: THE FULL AREA OF THE SHIELD AROUND THE ANODES IS TO BE GRIT BLASTED IRRESPECTIVE OF WHETHER THE SURFACE IS SHOP PRIMED. THE AREAS INVOLVED FOR THE INDIVIDUAL ANODES ARE AS FOLLOWS:

(A) LEAD/SILVER (2 INCH-50.8 mm) 20 FT X 10 FT (18.6 SQ METERS)

(B) ELLIPTICAL COATED TITANIUM CIRCLE, 5 FT RADIUS (7.3 SQ METERS)

THE DIELECTRIC SHIELD FOR THE 12 FT (3.65 M) LEAD/SILVER (2 INCH-50.8 mm) AND ELLIPTICAL COATED TITANIUM ANODES IS DIVIDED INTO AN INNER AND OUTER SHIELD, WHICH RESEMBLES A TARGET, WITH THE ANODE AS THE CENTER. THE INNER SHIELD CONSISTS OF AN EPOXY FILLER, WHICH IS TROWELED ON TO THE HULL. THE OUTER SHIELD CONSISTS OF EPOXY PAINTS, WHICH ARE SPRAYED ON TO THE HULL.

NOTE: EXTERNAL PLATING IN WAY OF HULL PENETRATIONS TO BE CLEAN, RUST AND SCALE FREE BEFORE INSTALLATION OF ANODES.

SHIELD AREAS TO BE SHOT-BLASTED TO A BRIGHT METAL BEFORE INSTALLING ANODE AND APPLYING DIELECTRIC SHIELD AROUND ANODE ASSEMBLY. THIS AREA MUST BE DRY AND FREE FROM CONDENSATION BEFORE THE DIELECTRIC SHIELD IS APPLIED. OTHERWISE, ADHESION OF THIS SHIELD CANNOT BE GUARANTEED.

APPLICATION

1. INNER SHIELD - FOR A DISTANCE OF TWO (2) FEET (60 cm) FROM THE EDGE OF THE ANODE FACE OR THE CENTER OF THE ELLIPTICAL COATED TITANIUM ANODE, APPLY EPOXY FILLER TO A THICKNESS OF 1/4 INCH (6 mm). IT MAY BE NECESSARY TO APPLY THIS INNER SHIELD IN TWO (2) APPLICATIONS IN ORDER TO ACHIEVE THE DESIRED SHIELD THICKNESS, BUT IT IS EXTREMELY IMPORTANT THAT THE MINIMUM THICKNESS OF 1/4 INCH (6 mm) IS ACHIEVED. THE INNER SHIELD IS NOT TO BE OVER-COATED WITH ANY OTHER MATERIAL.

2. OUTER SHIELD (2 INCH-50.8 mm AND ELLIPTICAL COATED TITANIUM ANODES ONLY)

(A) FIRST COATING-FROM THE OUTER EDGE OF THE INNER SHIELD, THE REMAINDER OF THE GRIT BLASTED AREA IS TO BE COATED WITH ONE (1) COAT OF METABOND ALUMINUM EPOXY PAINT TO A DRY FILM THICKNESS OF 100 MICRONS. (4 MILS)

SIZE	REVISION	ASI DWG NO	
A	3	C7-1000 19-01-01	SH NO 5H

Form A-GN-C (5-78)

GENERAL NOTES

3. BITOXY EPOXY PAINT - TWO-PACK COAL TAR EPOXY BASED MATERIAL THAT IS AVAILABLE IN TWO COLORS, BLACK AND BROWN. HOWEVER, NORMALLY, ONLY BLACK IS SUPPLIED.

THE MATERIAL SHOULD BE MIXED IN A RATIO OF FOUR (4) PARTS BASE TO ONE (1) PART REACTOR. THE POT LIFE OF THE MIXTURE IS EIGHT (8) HOURS AND ONLY SUFFICIENT MATERIAL FOR USE IN THE ALLOWABLE TIME SHOULD BE MIXED. THE MATERIAL IS SURFACE DRY IN APPROXIMATELY TWELVE (12) HOURS, BUT SHOULD NOT BE OVER-COATED IN LESS THAN SIXTEEN (16) HOURS. THE TOTAL INTERVAL BETWEEN THE THREE (3) BITOXY COATS SHOULD BE LESS THAN THREE (3) DAYS.

NOTE: DO NOT ATTEMPT TO THIN MATERIAL. THINNER IS TO BE USED FOR CLEAN-UP ONLY.

APPLICATION OF THIS MATERIAL SHOULD BE BY AIRLESS SPRAY. THE MATERIAL SHOULD BE APPLIED AT A RATE OF 20 SQUARE YARDS (16.7 SQUARE METERS) PER GALLON PER COATING IN ORDER TO OBTAIN A TOTAL DRY FILM THICKNESS OF ALL THREE (3) COATS OF APPROXIMATELY 500 MICRONS (20 MILS).

COAT BACK OF TYPE A ANODE WITH 1/4 INCH THICK (6.35 mm) INNER DIELECTRIC SHIELD EPOXY FILLER MASTIC MATERIAL PRIOR TO MOUNTING ANODE.

COAT UNDERSIDE OF TYPE B ANODE WITH INNER DIELECTRIC SHIELD EPOXY FILLER MASTIC MATERIAL BEFORE FINAL ASSEMBLY TO DOUBLER PLATE.

SURFACE PREPARATION

1. WELDS WHERE PRESENT SHOULD BE GROUND TO A SMOOTH ROUNDED CONTOUR. REMOVE WELD SPATTER BY GRINDING.

2. OIL AND GREASE SHOULD BE REMOVED USING CLEAN DRY OIL FREE RAGS SOAKED IN THE HYDROCARBON SOLVENT SUCH AS XYLOL, TOLUOL, WHITE SPIRIT, ETC. THE RAGS SHOULD BE CHANGED FREQUENTLY TO AVOID MERELY SPREADING CONTAMINATION.

3. GRIT BLAST TO A WHITE METAL FINISH, SA3, SWEDISH STANDARD, USING A CLEAN DRY ABRASIVE THAT WILL PROVIDE AN AVERAGE PEAK TO TROUGH PROFILE OF 3 TO 4 MILS.

4. REMOVE RESIDUAL DUST BY BLOWING OFF WITH CLEAN DRY OIL FREE AIR, OR A DRY BRISTLE BRUSH, OR A COMBINATION OF BOTH.

5. APPLY AQUAMASTIC WITHIN FOUR HOURS OF BLASTING AND BEFORE THE FORMATION OF VISIBLE RUST BLOOM.

SIZE	REVISION	ASI DWG NO	
A	3	C7-1000 19-01-01	SH NO 5G

Form A-GN-C (5-78)

GENERAL NOTES

43. (△2) IN SPACES COATED WITH 1910 TANK PROTECTIVE (BALLAST TANKS, VOIDS, COFFERDAMS, ETC.) STEEL PIPING IN SUCH SPACES IS TO BE PICKLED AND HAVE THE SAME COATING SYSTEM AS THE SPACE APPLIED DIRECTLY TO THE PIPE.

44. (△2) IN SPACES COATED WITH EPOXY TANK COATING 4424/4423 SERIES (POTABLE WATER, DISTILLED WATER, OIL SLOPS HOLDING TANKS) STEEL PIPING IN SUCH SPACES IS TO BE BLASTED AND HAVE THE SAME COATING SYSTEM AS THE SPACE APPLIED DIRECTLY TO THE PIPE.

SIZE	REVISION	ASI DWG NO	
A	4	19-01-01	SH NO 5J

Form A-GN-C (5-78)

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		F&G Ltr #L-772/184 Apr 11, 1978				
1		F&G Ltr # L-772/238 May 1, 1978				
2		F&G LTR #L-772/449 JULY 11, 1978				
3	8-24-78 [signature]	F&G LTR# L-772/698 SEPT 1, 1978				
4		F&G LTR # L-772/1400 JAN 5, 1979				
5	2-8-79 [signature]	F&G LTR# L-772/1625 FEB 28, 1979				
6		F&G LTR# L-772/2112 JUNE 13, 1979				MARAD LTR JUNE 7, 1979
7	6-20-79 [signature]	F&G LTR# L-772/2204 JULY 12, 1979				
8	9-7-79 [signature]	F&G LTR# L-772/2454 SEPT 10, 1979				
9	9-20-79 [signature]	F&G LTR# L-772/2502 SEPT 28, 1979				MARAD LTR OCT 4, 1979
10	3-5-80 [signature]					

SIZE	ASI DWG NO	
A	C7-1000 19-01-01	SH NO 6

REVISIONS

REV.	SHT.	DESCRIPTION
		REVISION 0 APPROVED BY F & G LETTER: SERIAL NO. L-772/184 DATED APRIL 11, 1978.
1	4	1. REFERENCE 1, CHG'D DWG NO FROM 19-01-012.
	32, 34	2. ADDED NON-SKID UNDER REMARKS LINE 6, SHT 32, LINE 7, SHT 34.
	35	3. ADDED DECK PAINT LINES 1 AND 4, DELETED DECK PAINT AND ADDED REF 1, LINE 8, ADDED SEE SHT 38, LINE 11.
	36	4. ADDED REF 1, LINES 2 AND 10, DELETED DECK PAINT LINE 2.
	40	5. DELETED INTERIOR ADDED N/S 4TH COAT UNDER REMARKS FOR DECKS: LINES 1, 2, 3 AND 5.
	45	6. ADDED LINE 10.
	50	7. DELETED DECK PAINT AND ADDED REF 1, LINE 7.
	51, 52, 53	8. ADDED: LINE 8, SHT 51, LINE 11, SHT 52 LINE 11, SHT 53.
	54	9. ADDED DECK PAINT LINES 3 AND 5.
		ITEMS 1 THRU 10 - TO CORRECT
	8	10. ADDED REMARKS LINE 11.
	11	11. LINE 3, CHG'D BOOMS TO CRANES.
	12	12. ADDED LINES 4, 9 AND 11.
	14	13. ADDED CONTAINER CRANES AND BY VENDOR LINES 1, 2, 4 AND 5.
	9, 23	14. SHT 9, LINE 6, SHT 23, LINES 1, 4 AND 9 CHG'D #1 TO 1#.
	23	15. LINES 5 AND 10 CHG'D 4TH COAT FROM SYM 9.
	28	16. LINE 8 CHG'D 2ND AND 3RD COATS FROM SYM 39. LINE 10 CHG'D SUR PREP FROM POWER TOOL
	35, 40	17. ADDED: LINE 10, SHT 35, LINE 6, SHT 40.
	39	18. LINE 8 ADDED N/S 3RD COAT.
		ITEMS 10 THRU 18 PER F & G COMMENTS.
		F & G LETTER: SERIAL NO. L-772/238 DATED MAY 1, 1978 — BY: JG 4-17-78 APVD:
2	14	1. LINES 1 & 2 CHG'D 3RD COAT FROM 5 TO 10.
	35	2. LINE 8 CHG'D DECK FROM DK COVERING TO COATING SYSTEM.
	12, 13	3. LINE 11 SHT 12 DELETED PRE PRIME AND ADDED BY VENDOR AND 2ND, 3RD, & 4TH COATS, SHT 13 ADDED LINE 5 ITEMS 1,2,3 PER F&G LTR. L-772/238 DTD 5-1-78
	5D, 8	4. SH 5D ADDED COATING TO GN 26, SHT 8 LINE 11 CHG'D FROM FISH OIL BY VENDOR - PER ASI LTR W100-335-BJG, 5-31-78.
	5E, 12	5. SHT 5E ADDED GN 41, SHT 12 LINE 9 REFENCED GN 41.
	3, 6B	6. ADDED SHT 6B AND REVISED INDEX REVISION 2 CONTINUES ON SHT 6B

SIZE	A.S.I. DWG. NO.	
A	C7-1000 19-01-01	SHT. NO. 6A

Form A-RV-C (1/77)

RED. 6X DATE 7-81 MA. NO. H-179 BLDR. NO. 19-01-01 FRAME NO. 4

REVISIONS

REV	SH	DESCRIPTION
8	3, 6D	1. ADDED SHT 6D & REVISED INDEX TO SUIT.
	26, 43 50	2. SHT 26 DELETED LINE 11, SHT 43 LINE 8 SHT 50 LINE 2 ADDED FDNS-GN 35 AND PRE-PRIME.
	5E	3. GENERAL NOTE 35 CHANGED MACHINERY TO LAUNDRY.
		ITEM 2 AND 3 - PER DEVELOPMENT AS LAUNDRIES NOT MACHINERY SPACES HAVE THE BOX FOUNDATION VOIDS. BY: J.G. 8-24-79
9	21	1. LINE 1 CHG'D FROM FR 58 P/S TO FR 3-4 & FR 11-12-PER DEF ITEM 174-TO CORRECT.
	20	2. ADDED LINE 8 - PER DEVELOPMENT.
	20	3. ADDED LINE 10 - PER DEVELOPMENT - PER DEF. ITEM 175. BY: JG 9-20-79
10	7	1. ADDED SYM 13-PER DEVELOPMENT.
	8A	2. ADDED LINE 6 - PER DEF ITEM 199, LINE 7-PER DEF ITEM 272.
	54	3. ADDED DECK PAINTING LINE 10 - TO CORRECT. BY: JG 3-4-80
11	8A	1. LINES 6 & 7 DELETED FILL WITH FOAM, ADDED SURFACE PREP AND COATING SYSTEM-PER FIAN 0-39.
	7,53 54	2. SH 7 SYM 32 CHG'D FORMULA NUMBER FROM 5800/5801 TO 7180-MANUFACTURERS NUMBER CHANGE, SH 53 LINE 6 CHG'D BHD & OVHD FINISH FROM 40 TO 37 TO SHOW AS PAINTED TO SUIT OWNER. SH 54 ADDED LINE 11-TO CORRECT BY: JG 9-9-80

Form A-RV-C (9-78)

SIZE A | A S I DWG NO C7-1000 19-01-01 | SH NO 6D

REVISIONS

REV.	SHT.	DESCRIPTION
4	17	5. ADDED LINES 10 & 11 GARBAGE TANK TO CORRECT. BY: J.G. 12-26-78
5	5F	1. CHANGED "THINK" TO "THIN"-TO CORRECT.
	9,4	2. ADDED LINE 10 SHT 9, ADDED REF 10 SHT 4-DEVELOPMENT.
	13	3. LINE 1 CHANGED REMARKS TO ONE POUND-TO CORRECT.
	14 19	4. ADDED LINES 8 AND 9 SHT 14, ADDED LINE 2 SHT 19 - PER DEVELOPMENT.
	3,8 8A	5. ADDED HULL 2307 ONLY LINE 3 SHT 8, ADDED SHT 8A AND REVISED INDEX TO SUIT-PER C. O. #12.
	7B	6. ADDED SYMBOLS 63, 64, 65-PER C. O. #12.
	11 12	7. ADDED "BY VENDOR" UNDER REMARKS: LINE 3 SHT 11, LINE 10 SHT 12 - TO CLARIFY.
	14	8. LINES 1 & 2 DELETED "& LIGHTER", LINE 1 ADDED "4TH COAT W/NON SKID", ADDED LINES 3, 6 & 7-ALL PER DEVELOPMENT. BY: J.G. 2-8-79
6	8A 9	1. SHT 8A ADDED LINE 3, SHT 9 LINE 7 ADDED ALUMINUM TO REMARKS, CHANGED SURFACE PREP AND COATING SYSTEM TO SUIT ALUMINUM-PER DEVELOPMENT.
	12	2. LINE 10 CHANGED 3RD COAT FROM SYM 5 AND 4TH COAT FROM SYM 10 - PER OWNER. BY: J.G. 5-15-79
7	5E 1,3A 31,56 57,58 59,60 61,62	1. RELEASED RESERVATION #2 SHT 1 AND GN 37; ADDED SHTS 56-62 TO GN 37 SHT 5E; DELETED VERMICULITE SHT 31 LINE 5; ADDED SHTS 56 THRU 62 AND REVISED INDEX SHT 3A TO SUIT.
		2. DELETED RES #3 (HANDLED ON DWG NO 28-04-01).
	7	3. ADDED SYM NO 12.
	24	4. ADDED LINE NO 6.
	5C	5. REVISED GN 23 TO INCLUDE SHT 27 LINE 7.
		ITEMS 1 THRU 4 PER DEVELOPMENT, ITEM 5 TO CORRECT. BY: M.C. 6-19-79

Form A-RV-C(10/76)

SIZE A | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 6C

REVISIONS

REV.	SHT.	DESCRIPTION
2		REVISION 2 CONTINUED FROM SHT 6A
	7B 26	7. SHT 7B ADDED SYM 50, SHT 26 LINE 4 & 5 CHG'D 2ND COAT FROM SYM 31 TO SYM 50 - PER SIGMA RECOMMENDATION.
	7A	8. SYM 28 & 29 CORRECTED SPELLING FROM INTERGARARD TO INTERGARD.
	27	9. ADDED LINE 7 TO CLARIFY COATING BELOW DADO. BY: J.G. 6-13-78 APVD: JJM/LM 6/23/78
3	1,3 5F, 5G, 5H, 5I, 8	1. ADDED SHEETS 5F, 5G, 5H AND 5I FOR GENERAL NOTE 42 AND REVISED INDEX TO SUIT, DELETED RESERVATION NO 1 SH NO 1, ADDED ANODE SHIELD SEE GN 42 LINE 9 SH 8 - ALL PER DEVELOPMENT OF DIELECTRIC ANODE SHIELDS.
	5E, 7B 15 16	2. DELETED GN 39 SH 5E, DELETED SYM 60 ADDED SYM 61 AND 62 SH 7B, DELETED GN 39 FOR SURFACE PREP, SUBSTITUTED SYM 61 IN LIEU OF SYM 60 FOR 1ST COAT AND ADDED SYM 62 FOR 2ND COAT LINES 7, 9 & 10 SH 15 LINES 1 THRU 8 SH 16 - ALL PER CHANGE INQUIRY 15.
	12 26	3. ADDED 2ND, 3RD AND 4TH COATS LINE 4 SH 12, ADDED REMARKS LINE 4 SH 26 - PER COMMENTS F & G LTR L-772/449 DATED JULY 11, 1978.
	45	4. LINE 1: CHANGED COMPARTMENT FROM "PASSAGE" TO "VOID IN". ADDED PORT, DELETED DECK COVERING AND ADDED PAINT ON DECK, DELETED CONCEALED FROM BHD AND OVHD-ALL PER STRUCTURAL DESIGN CHANGE. BY: J.G. 8-23-78
4	7A	1. CHG'D SYM 23 FROM BU 4424/4423 BUFF TANK COATING AND SYM 24 FROM 4421/4423 LT BLUE TANK COATING.
	3,5C 5J, 6C	2. ADDED SHTS 6C & 5J (GN 43 & 44) & REVISED INDEX TO SUIT, REFERENCED GN 43 & 44 ON SHT 5C G.N. 23.
	15,16 19	3. ADDED REMARKS: SH 15 LINES 1, 2, 7, 9, 10, SH 16 LINE 1 THRU 9, SH 19 LINES 1, 3 THRU 11.
	7,8	4. SH 7 CHG'D SYM 18 FROM 2.0 MDFT, SYM 19 FROM 4.0 MDFT, SH 8 LINE 3 CHG'D 1ST COAT FROM 15, 2ND COAT FROM 18, 3RD COAT FROM 19 DELETED 4TH COAT.
		ITEMS 1 THRU 4 PER CHANGE INQUIRY NO 19.

Form A-RV-C(10/76)

SIZE A | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 6B

REV	SYM NO.	MATERIAL	FORMULA NUMBER	MANUFACTURER	MDFT
	1	PRE-ERECTION PRIMER INORGANIC ZINC SILICATE	2437	INTERNATIONAL PAINT CO.	1.0
	2	INORGANIC ZINC SILICATE PRIMER	2410/2411		2.5
	3	VINYL ACRYLIC PRIMER	3500 GRAY		2.0
	4	VINYL ACRYLIC	GRAY 3504		2.0
	5	VINYL ACRYLIC	3501 BONE WHITE		2.0
	6	VINYL ACRYLIC FINISH 3500 SERIES	GX 303 GRAY BLACK		1.5
	7	VINYL ACRYLIC FINISH	3508 WHITE		1.5
	8	VINYL ACRYLIC FINISH	3507 BLACK		1.5
	9	VINYL ACRYLIC FINISH	3506 RED OXIDE		1.5
	10	VINYL ACRYLIC FINISH 3500 SERIES	GX 338 LIGHT BUFF		1.5
	11	VINYL ACRYLIC FINISH 3500 SERIES	GX 299 TG RED		1.5
7[3]	12	VINYL ACRYLIC FINISH 3500 SERIES	3512 YELLOW		1.5
10[1]	13	LAGOLINE ALKYD FINISH	DARK BLUE 1196		1.5
	14				
	15	ONE PACKAGE EPOXY PRIMER AND TIE COAT	4437	INTERNATIONAL PAINT CO	1.5
	16	EPOXY RED LEAD PRIMER EPOXY/POLYAMIDE	4400/4414		2.0
	17	HIGH BUILD EPOXY MASTIC EPOXY/POLYAMIDE	4413/4414 BLACK		8.0
4[4]	18	UNDERWATER PRIMER PRIMOCON SILVER	1744		3.0
	19	UNDERWATER PRIMER PRIMOCON SILVER HIGH BUILD	HP 1744		4.5
	20	ANTIFOULING OFFSHORE ROSIN-BASE	1605		1.5
	21	EPOXY TANK COATING INTERGARD BUFF	BU 4424/4423		4.0
	22	EPOXY TANK COATING INTERGARD LIGHT BLUE	4421/4423		4.0

Form A-WS-C (1/77)

SIZE A | REVISION 10 7 4 | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 7

REV	SYM NO.	MATERIAL	FORMULA NUMBER	MANUFACTURER	MDFT
4[1]	23	HI-FLASH TANK PROTECTIVE	1910 BLACK	INTERNATIONAL PAINT CO.	3.0
	24	HI-FLASH TANK PROTECTIVE BRONZE IN COLOR	1910 ALUMINUM		3.0
	25	SPAR VARNISH	A-208		
	26	WOOD SEALER	1026		
	27	PRIMER SURFACER	RH 907		
2[8]	28	EPOXY POLYAMIDE INTERGARD MASTIC	4418/4414 WHITE		5.0
	29	EPOXY POLYAMIDE INTERGARD MASTIC	4419/4414 RED OXIDE		5.0
	30	INORGANIC ZINC SILICATE PRIMER	GREEN 711	SIGMA PAINT CO.	2.5
	31	ONE PACKAGE EPOXY PRIMER & TIE COAT SIGMA SEALER	7201		1.5
11[2]	32	WASH PRIMER	7180 ~~5800/5801~~		0.5
	33	COAL TAR EPOXY COLTURIET TCN 300	7472		6.0
	34	HIGH BUILD EPOXY COLTURIET HIGH BUILD 7456	2001 RED OXIDE		5.0
	35	ALKYD RED LEAD PRIMER LILY RED LEAD	7113 LT RED LEAD		1.5
	36	ALKYD ZINC CHROMATE PRIMER PRIMERITE YELLOW	7135 YELLOW		1.5
	37	VINYL ACRYLIC FINISH NUCOL VA 7351	7000 WHITE		1.5
	38	VINYL ACRYLIC FINISH NUCOL VA 7351	2001 RED BROWN		1.5
	39	ALKYD ENAMEL FINISH LILY BTD 7238	1225 GRAY		1.0
	40	ALKYD ENAMEL FINISH LILY BTD 7238	7000 WHITE		1.5
	41	ALKYD ENAMEL FINISH LILY BTD 7238	2001 RED BROWN		1.5
	42	ALKYD ENAMEL FINISH SIGMA ENAMEL 7240	6121 ORANGE		1.5
	43	ALKYD ENAMEL FINISH SIGMA ENAMEL 7240	3181 YELLOW		1.5
	44	ALKYD ENAMEL	69-450 FLAT BLACK		1.5

Form A-WS-C (1/77)

SIZE A | REVISION 11 4 2 | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 7A

REV	SYM NO.	MATERIAL	FORMULA NUMBER	MANUFACTURER	MDFT
	45	LILY HOLD PAINT ALUMINUM	7263	SIGMA PAINT CO.	1.5
	46	HI-HEAT ALUMINUM	HR 500		2.0
	47				
	48	VERMICULITE			
	49	BINDER PAINT	2584	SIGMA PAINT CO	
2[7]	50	COLTURIET SEALER	7420		1.5
	51	PARKS PRIMER SEALER	FLAT WHITE	SIGMA PAINT CO.	
	52	VINYL ACRYLIC FINISH NUCOL VA 7351	2001 RED BROWN		3.0
	53				
	54				
	55				
	56				
	57				
	58				
	59				
3[2]	60	~~TEXACO FLOATCOAT~~		~~TEXACO OIL CO.~~	
	61	HI-FLASH TANK PROTECTIVE	1910 BLACK	INTERNATIONAL PAINT CO	5.0
	62	HI-FLASH TANK PROTECTIVE COLORED WITH ALUMINUM	1910 BRONZE		5.0
5[6]	63	VITAR (VINYL COAL TAR)	3222 SILVER		3.0
	64	SPC ANTIFOULING	BLUE		4.0
	65	SPC ANTIFOULING	GREEN		4.0
	66				

Form A-WS-C (1/77)

SIZE A | REVISION 5 3 2 | A.S.I. DWG. NO. C7-1000 19-01-01 | SHT. NO. 7B

RED. 6X DATE 7-81
MA. NO. H-179 BLDR. NO. 19-01-01
FRAME NO. 5

PAINT SCHEDULE EXTERIOR

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	SUPER-STRUCTURE EXTERIOR	VERTICAL		G.N. 1, 2,3,4 & 22		2	3	5	7	
	2	↓	OVHDS	CONCEALED	G.N. 1, 2,3,4 & 22		2	3			
	3	↓	OVHDS	EXPOSED	G.N. 1, 2,3,4 & 22		2	3	5	7	
	4	↓	SHEET METAL SHEATH-ING		GN 21	32	3	5	7		
	5	DECK HOUSES	VERTICAL		G.N. 1, 2,3,4 & 22		2	3	5	7	
1[4]	6	↓	TOPS	1# NON-SKID PER GAL ADD TO FINSIH	G.N. 1, 2,3,4 & 22		2	3	4	9	
6[1]	7	PILOT SHELTER	EXTERIOR & INTER-IOR	ALUMINUM	G.N.21	32	3	5	7		
	8	STACKHOUSES	EXTERIOR	SEE REF 2	G.N. 1, 2,3,4 & 22		2	3	5	10	
	9	SMOKESTACKS ABOVE STACKHOUSES	EXTERIOR	SEE REF 2	G.N. 1, 2,3,4 & 22		2	3	5	10	
5[2]	10	SHIP'S NAMEBOARDS	-	ALUMINUM SEE REF #10	G.N. 21	32	3	5	8 & 7		
	11	VENT HOUSES PLENUMS & FAN ROOMS		EXPOSED TO WEATHER	G.N. 1, 2,3,4 & 22		2	3	5	7	

Form A-F/PS2-C (2-78)

SIZE A | REVISION 6 5 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 9

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
5[5]	1	FWD FR 104 KEEL TO 28'-WATERLINE	EXTERIOR HULL 2308 ONLY	6TH COAT TO BE SYM 65	GN 1,2, 3,4,6 & 22		63	63	63	65	64
	2										
6[1]	3	POWERED PILOT HOIST		PAINTED BY VENDOR ALUMINUM	GN 21	32	3	5	8		
	4										
	5										
10[2] 11[1]	6	DECK FITTING CLOSED BOX FOUNDATIONS	INTERIOR	~~FILL WITH PLASTIC FOAM~~	GN 1,2,3 4		15	15			
10[2] 11[1]	7	MACHY STORES CRANE FOUNDATION	↓		↓		15	15			
	8										
	9										
	10										
	11										

Form A-F/PS2-C (2-78)

SIZE A | REVISION 11 10 6 5 | ASI DWG NO C7-1000 19-01-01 | SH NO 8A

PAINT SCHEDULE EXTERIOR HULL

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	SEA CHEST, SCOOPS, ROPE-GARDS & AREA UNDER GUARDS	EXTERIOR HULL	G.N. 6	G.N. 1, 2,3,4 & 22		16	17	17		
	2	AFT OF FR 104 BELOW 28'-0" WATERLINE	↓	G.N. 6	↓		16	17	17		
4[4] 5[5]	3	FWD FR 104, KEEL TO 28'-0" WATERLINE	EXTERIOR HULL 2307 ONLY	TOUCH UP 1ST COAT WITH SYM 18 G.N. 6	G.N. 1, 2,3,4 & 22		18	19	20		
	4	28'-0" WATERLINE TO RAIL	EXTERIOR HULL		G.N. 1, 2,3,4 & 22		2	3	4	6	
	5	INBOARD SIDE OF BULWARKS MN & FOSCLE	↓	G.N. 5	↓		2	3	4	6	
	6	HULL MARK-INGS	↓	SEE REF 2	↓					7	7
	7	BOW THRUSTER	EXTERIOR HULL		GN 1,2,3, 4,22		16	17	17		
	8	RUDDER	EXTERIOR		↓		16	17	17		
3[1]	9	PROPELLER & ANODES	ANODE SHIELD SEE GN 42	DO NOT PAINT GN 27							
	10	ANCHORS		COAT WITH FISH OIL							
1[10] 2[4]	11	ANCHOR CHAINS		FISH OIL BY ASI G.N. 26							

Form A-F/PS2-C (2-78)

SIZE A | REVISION 5 4 2 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 8

PAINT SCHEDULE WEATHER EXPOSED

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	SUPER-STRUCTURE & DK HOUSE DOORS	OUTSIDE AND IN-SIDE	INCLUDE GASKET CHANNELS	G.N. 22 BLAST SP-5		2	3	5	7	
	2	DECK GEAR BOXES & DAVITS			G.N. 1, 2,3,4 & 22	1	2	3	5	7	
	3	DECK MACHINERY			↓		2	3	4	8	
	4	MOORING RINGS, BITTS CHOCKS, ETC			G.N. 1, 2,3,4 & 22		2	3	4	8	
	5	EXT FDNS & CONTROL BOXES			↓		2	3	4	8	
	6	EXTERIOR ELEC MOTORS & BRAKES			↓		2	3	4	8	
	7	NAVIGATING LIGHT SCREENS			↓		2	3	8		
	8	EXT FIRE & EMERGENCY EQUIPT			↓		2	3	11		
	9	WEA EXPOSED LOCKERS, BOXES, ETC	TOPS & SIDES	*FINISH TO MATCH SUR-ROUNDINGS GN 40	↓		2	3	*		
	10	STANCHIONS, WINDSHIELD & VERT LADDERS	WEATHER EXPOSED		G.N. 1, 2,3,4 & 22		2	3	5	7	
	11	VENTS & OVERFLOWS			↓		2	3	4	8	

Form A-F/PS2-C (2-78)

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 10

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	DUCTS, COWLS HOODS & GOOSENECKS	INTERIOR EXTERIOR		G.N. 1, 2,3,4 & 22		2	3	5	7	
	2	VENT GUARDS & MISC FITTINGS	INTERIOR EXTERIOR	*FINISH TO MATCH SUR-ROUNDINGS G.N. 40	↓		2	3	*		
1[11] 5[7]	3	FWD STORES CRANE	EXTERIOR	BY VENDOR	G.N. 1 2,3,4 & 22		2	3	5	10	
	4	JACK & EN-SIGN STAFFS & FOREMAST	EXTERIOR		G.N. 1, 2,3,4 & 22		2	3	5	10	
	5	FOREMAST	INTERIOR		G.N. 1, 2,3,4 & 23		45	45			
	6										
	7	UNLAGGED PIPING & MISC STEEL WORK	EXTERIOR WEATHER EXPOSED	*FINISH TO MATCH SUR-ROUNDINGS G.N. 40	G.N. 1, 2,3,4 & 22		2	3	*		
	8										
	9	DIESEL ENGINE EXHAUST	WEATHER EXPOSED		GN 22 BLAST SP-10		46	46			
	10	INCLINED LADDERS	WEATHER EXPOSED	DO NOT PAINT ABRA-SIVE TREADS	GN 1,2,3 4,22		2	3	5	7	
	11										

Form A-F/PS2-C (2-78)

SIZE A | REVISION 5 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 11

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	RIGGING RUNNING OR STANDING		COAT W/EX-XON SURRETT #30 & UNIREX N-2 MIX							
	2	ACCOMMODA-TION LADDER & ATTACHMENTS		DO NOT PAINT NATURAL ALUMINUM							
	3	ACCOM LDR DAVIT & HDLG BUMPERS			G.N. 22		2	3	4	8	
1[12] 3[3]	4	CRANE RAILS	ALL		G.N. 1, 2,3,4 & 22		2	3	4	8	
	5	HAWSE & CHAIN PIPES & COVERS	EXTERIOR	ABOVE UPPER DECK	G.N. 1, 2,3,4 & 22		2	3	4	8	
	6	HAWSE PIPE & HAWSE SHELL BOLSTER	INTERIOR		↓		2	3	4	6	
	7	CRANE RAIL SUPPORTS			↓		2	3	4	8	
	8	CABLE, CABLE-WAYS & BKTS FOR ELECT EQUIPT	WEATHER EXPOSED	*FINISH TO MATCH SUR-ROUNDINGS	PREP & PRIME TO SUIT						
1[12] 2[5]	9	CRANE RAIL & SUPPORTS	FAYING SURFACES	GN 41	G.N. 1, 2,3,4 22 & 25		15	15			
5[7] 6[2]	10	MACHY STORES CRANE	ALL WEATHER EXPOSED	BY VENDOR	G.N. 22		2	3	4	8	
1[12] 2[3]	11	RACK GEARS	BACK & SIDES	BY VENDOR	G.N. 1, 2,3,4 & 22		2	3	4	8	

Form A-F/PS2-C (2-78)

SIZE A | REVISION 5 3 2 | ASI DWG NO C7-1000 19-01-01 | SH NO 12

PAINT SCHEDULE — TANKS

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	POTABLE WTR TANKS FR 90 -95P/S	INTERIOR	APPLY SYM 21 AT 2.0 MILS BY BRUSH TO WELDS, ANGLES EDGES, ETC. SEE GN 44	G.N. 1, 2,3,4, 11 & 23		21	22			
4[3] ↓	2	DIST WTR TKS FR 90-95 P/S	INTERIOR	↓	↓		21	22			
	3										
	4	FWD FLUME TANK FR 52-55	INTERIOR		G.N. 1, 2,3,4, 11 & 23		33	33			
	5	AFT FLUME TANK FR 55-58	INTERIOR		↓		33	33			
	6										
3[2] 4[3]	7	FORE PEAK TANK-FWD OF FR 21	INTERIOR	PIPING SEE GN 43	G.N. 1, 2,3,4	1	61	62			
	8										
	9	S.W. BALLAST TANK FR 21-44	INTERIOR	PIPING SEE GN 43	G.N. 1, 2,3,4	1	61	62			
4[3] 3[2] ↓↓	10	NO. 1 S.W. BALLAST TK FR 52-55	INTERIOR	↓	G.N. 1, 2,3,4	1	61	62			
	11										

SIZE A | REVISION: 4 3 | ASI DWG NO C7-1000 19-01-01 | SH NO 15

Form A-F/PS2-C (2-78)

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
1[13] 2[1] 5[8]	1	CONTAINER CRANE	EXTERIOR WALKING SURFACES	BY VENDOR 4TH COAT W/ NON SKID	G.N. 22		2	3	10	10	
1[13] 2[1] ↓	2	↓	REMAINING EXTERIOR SURFACES	BY VENDOR	G.N. 22		2	3	10	10	
	3	LIGHTER CRANE	EXTERIOR	BY VENDOR	G.N. 22		2				
1[13]	4	CONTAINER & LIGHTER CRANES	INTERIOR DECK	BY VENDOR	G.N. 23		29				
1[13]	5	↓	REMAINING INTERIOR	↓	G.N. 23		28				
	6	LIGHTER CRANE	EXTERIOR WALKING SURFACES	BY ASI 4TH COAT W/NON SKID	G.N. 7			3	10	10	
5[8] ↓	7	↓	REMAINING EXTERIOR SURFACES	BY ASI	G.N. 7			3	10	10	
	8	WEATHER HATCH COVERS	SIDES AND COAMING		G.N. 1, 2,3,4 & 22		2	3	4	8	
5[4] ↓	9	↓	TOPS	1# NON-SKID PER GAL ADD TO FINISH	↓		2	3	4	8	
	10										
	11										

SIZE A | REVISION: 5 2 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 14

Form A-F/PS2-C (2-78)

PAINT SCHEDULE — EXTERIOR

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
5[3]	1	MAIN DECK	WEATHER EXPOSED	1# NON-SKID PER GAL ADD TO FINISH	G.N. 1, 2,3,4 & 22		2	3	4	8	
	2	UPPER DECK	↓	↓	G.N. 1, 2,3,4 & 22		2	3	4	9	
	3	CABIN DECK	↓	↓	G.N. 1, 2,3,4 & 22		2	3	4	9	
	4	BRIDGE DECK	↓	↓	G.N. 1, 2,3,4 & 22		2	3	4	9	
2[3]	5	HOUSE TOPS	↓	↓	↓		2	3	4	9	
	6	HANDRAILS & STANCHIONS MAIN DECK	EXTERIOR WEATHER EXPOSED		G.N. 22 BLAST SP-5		2	3	4	8	
	7	RAILS ON FOREMAST	↓		↓		2	3	4	10	
	8	HANDRAILS & STANCHIONS STACKHOUSES	↓		↓		2	3	4	10	
	9	HANDRAILS & STANCHIONS DECKHOUSES	↓		↓		2	3	5	7	
	10	HANDRAILS & STANCHIONS UPR & CABIN DKS	↓		↓		2	3	5	7	
	11	HANDRAILS & STANCHIONS BR & PILOT HSE TOP	↓		↓		2	3	5	7	

SIZE A | REVISION: 5 2 | ASI DWG NO C7-1000 19-01-01 | SH NO 13

Form A-F/PS2-C (2-78)

PAINT SCHEDULE — TANKS

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
4[3] 3[2]	1	NO 2 D.B. S.W. BALLAST TKS FR 61-70 P/S	INTERIOR	PIPING SEE GN 43	G.N. 1, 2,3,4	1	61	62			
↓ ↓	2	NO 2 WING BALLAST TKS FR 61-67 P/S	INTERIOR	↓	↓	1	61	62			
↓ ↓	3	NO 2A WING BALLAST TKS FR 67-78 P/S	INTERIOR	↓	↓	1	61	62			
↓ ↓	4	NO 3 D.B. S.W. BALLAST TKS FR 70-76 P/S	INTERIOR	↓	↓	1	61	62			
↓ ↓	5	NO 4 D.B. S.W. BALLAST TKS FR 76-85 P/S	INTERIOR	↓	↓	1	61	62			
↓ ↓	6	NO 4 WING BALLAST TKS FR 79-85 P/S	INTERIOR	↓	↓	1	61	62			
↓ ↓	7	NO 7 S.W. BALLAST TKS FR 101-121 P/S	INTERIOR	↓	↓	1	61	62			
↓ ↓	8	AFT S.W. BALLAST TKS FR 121-131 P/S	INTERIOR	↓	↓	1	61	62			
↓	9	OIL SLOPS HOLDING TK FR 86-88	INTERIOR	PIPING SEE GN 44	G.N. 1, 2,3,4, 11 & 23	1	21	22			
	10										
	11										

SIZE A | REVISION: 4 3 | ASI DWG NO C7-1000 19-01-01 | SH NO 16

Form A-F/PS2-C (2-78)

PAINT SCHEDULE — TANKS

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	ENGINE RM SEWAGE HOLDING TANK	INTERIOR		G.N. 1, 2,3,4, 11 & 23		33	33			
	2	SEWAGE HOLDING TK	INTERIOR		↓		33	33			
	3	FUEL OIL OVERFLOW TKS FR 51P/S	INTERIOR	THOROUGHLY CLEAN PRIOR TO FILLING	G.N. 1, 2,3,4	1					
	4	FUEL OIL TKS FR 44-52 P/S	INTERIOR	THOROUGHLY CLEAN PRIOR TO FILLING	G.N. 1, 2,3 & 4	1					
	5	FUEL OIL OVERFLOW TKS FR 73 P/S	INTERIOR	↓	↓	1					
	6	NO 3 WING F.O. TANKS FR 73-79 P/S	INTERIOR	↓	↓	1					
	7	FUEL OIL OVERFLOWTKS FR 95 P/S	INTERIOR	↓	↓	1					
	8	NO 6 WING F.O. TANKS FR 94-101 P/S	INTERIOR	↓	↓	1					
	9	DIESEL OIL TANKS FR 85-87 P/S	INTERIOR	↓	↓	1					
	10	GARBAGE TANK	EXTERIOR		G.N. 1, 2,3,4		31	37	37		
4[5] ↓	11	↓	INTERIOR		↓		33	33			

SIZE A | REVISION: 4 | ASI DWG NO C7-1000 19-01-01 | SH NO 17

Form A-F/PS2-C (2-78)

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1										
	2	L.O. STOR TK FR 89-90P	INTERIOR	SEE REF 3 COAT WITH LUBE OIL	G.N. 1, 2,3 & 4 G.N. 23	REMOVE					
	3	L.O. SETT TK FR 89-90 P	↓	↓	↓	↓					
	4	L.O. STOR TK (DIESEL GEN) FR 89-90 P	↓	↓	↓	↓					
	5	L.O. GRAVITY TK FR 89-90 S	↓	↓	↓	↓					
	6										
	7										
	8										
	9										
	10										
	11										

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 18

Form A-F/PS2-C (2-78)

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
9^{1}	1	FATHOMETER WELL FR 3-4, FR 11-12	INTERIOR		G.N. 1, 2,3,4 & 23		33	33			
	2	AFT FLUME TANK DRAINWELL	INTERIOR				33	33			
	3	HOLD NO 1 DRAINWELLS FR 60-61P/S	INTERIOR				33	33			
	4	HOLD NO 2 DRAINWELLS FR 69-70P/S	INTERIOR				33	33			
	5	HOLD NO 3 DRAINWELLS FR 75-76P/S	INTERIOR				33	33			
	6	HOLD NO 4 DRAINWELLS FR 84-85P/S	INTERIOR				33	33			
	7	HOLD NO 5 DRAINWELLS FR 94-95P/S	INTERIOR				33	33			
	8	HOLD NO 6 DRAINWELLS FR 100-101 P/S	INTERIOR				33	33			
	9	HOLD NO 7 DRAINWELLS FR 120-121 P/S	INTERIOR				33	33			
	10	ENG RM DRAIN WELLS FR 85-86,89-90 & 93	INTERIOR				33	33			
	11	STEERING GR RM DRAIN-WELLS FR 131-132 P/S	INTERIOR		↓		33	33			

Form A-F/PS2-C (2-78) | SIZE A | REVISION 9 | ASI DWG NO C7-1000 19-01-01 | SH NO 21

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	TRANSOM FINS & BILGE KEEL	INTERIOR	G.N. 34 FILL WITH FOAM							
	2	FOREPEAK VOIDS	INTERIOR	↓							
	3										
	4	RUDDER & RUDDER HORN	INTERIOR	G.N. 35 FILL WITH FOAM							
	5										
	6	PIPE TUNNELS IN DISTILLED WTR TANKS	INTERIOR	G.N. 33 FILL WITH FOAM							
	7										
9^{2}	8	BRIDGE WING VOIDS P/S			GN 1,2,3,4 & 23	1	23	24	—	—	—
	9										
9^{3}	10	SKEG	INTERIOR	FILL WITH PLASTIC FOAM							
	11										

Form A-F/PS2-C (2-78) | SIZE A | REVISION 9 | ASI DWG NO C7-1000 19-01-01 | SH NO 20

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
4^{3}	1	BOX GIRDER VOIDS	INTERIOR	PIPING SEE GN 43	G.N. 1, 2,3,4 & 23		23	24			
5^{4}	2	INACCESSIBLE BOX GIRDER VOIDS	INTERIOR	GN 35 FILL WITH FOAM							
	3	CHAIN LOCK-ER VOIDS FR 15-21 P/S	INTERIOR	PIPING SEE GN 43	G.N. 1, 2,3,4 & 23		23	24			
4^{3}	4	VOIDS 1A FR 55-58, 1B FR 58-61	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
	5	ENGINE ROOM COFFERDAM FR 85-86	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
	6	ENGINE ROOM VOID FR 88-95	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
	7	ENGINE ROOM VOIDS FR 87-95 P/S	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
	8	NO 6 DOUBLE BOTTOM VOID FR 95-101	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
	9	POTABLE WTR TKS-COFFER-DAMS FR 90-95 P/S	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
	10	DISTILLED WTR TKS- CO FFERDAMS FR 90-95 P/S	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
↓	11	TRANSOM COFFERDAMS FR 131-132	INTERIOR	↓	G.N. 1, 2,3,4 & 23		23	24			

Form A-F/PS2-C (2-78) | SIZE A | REVISION 5 4 | ASI DWG NO C7-1000 19-01-01 | SH NO 19

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	SHAFT ALLEY DRAINWELL FR 100-101	INTERIOR		G.N. 1, 2,3,4 & 23		33	33			
	2										
	3	CHAIN LKR & SUMP FR 15-21	INTERIOR		G.N. 1, 2,3,4 & 23		33	33			
	4										
	5	BOW THRUSTER MACHY SP	DECK		G.N. 1, 2,3,4 & 23	1	31	38	38		
	6	↓	BHDS & OVHD		↓	1	31	37	37		
	7										
	8	BOW THRUSTER VOIDS	INTERIOR		G.N. 1, 2,3,4 & 23		23	24			
	9										
	10										
	11										

Form A-F/PS2-C (2-78) | SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 22

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
1^{14}	1	CARGO HATCH COVERS	TOPS	ADD 1# NON-SKID PER GAL TO FINISH	G.N. 1, 2,3,4 & 22		2	3	4	8	
	2	↓	SIDES & SKIRTS		↓		2	3	4	8	
	3	↓	UNDER-SIDES		G.N. 1, 2,3,4 & 23		30				
1^{14}	4	STORES HATCH COVER	TOP	ADD 1# NON-SKID PER GAL TO FINISH	G.N. 1, 2,3,4 & 22		2	3	4	9	
1^{15}	5	↓	COAMING		↓		2	3	4	8	
	6	↓	UNDER-SIDE		G.N. 1, 2,3,4 & 23		2	31	40	40	
	7	HATCHES INSIDE STACK	TOPS & COAMINGS		G.N. 1, 2,3,4 & 23		2	31	45	45	
	8	↓	UNDER-SIDES		↓		2	3	5	7	
1^{14}	9	ACCESS HATCHES UPPER DECK	TOPS	ADD 1# NON-SKID PER GAL TO FINISH	G.N. 1, 2,3,4 & 22		2	3	4	9	
1^{15}	10	↓	COAMINGS		↓		2	3	4	8	
	11	↓	UNDER-SIDES		G.N. 1, 2,3,4 & 23		2	3	5	7	

Form A-F/PS2-C (2-78) | SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 23

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	CARGO HOLD VENT/ACCESS TRUNKS	DECKS & 3'-0" DADO	ADD NON-SKID TO FINAL COAT ON DECKS	G.N. 1, 2,3,4	1	30	52			
	2	↓	OVHDS BHDS & STEEL	EXPOSED ABOVE DADO	↓	1	30				
	3	ACCESS TRUNK TO STEERING GEAR FLAT	DECK (MAIN DECK)		G.N. 1, 2,3,4		2	3	4	8	
	4	↓	OVHD BHDS & STEEL	EXPOSED	↓	1	31	37	37		
	5										
7^{4}	6	ANODE TRUNK	ALL INTERIOR		G.N. 1, 2,3,4	1	30				
	7	SHIP STORES TRUNK	BHDS & STEEL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	8	↓	BHDS & STEEL	EXPOSED	↓	1	31	40	40		
	9	↓	INSULA-TION		CLEAN		40	40			
	10	CHAIN LOCKER TRUNK	DECK		G.N. 1, 2,3,4	1	31	41	41		
	11	↓	BHDS OVHD & STEEL	EXPOSED	↓	1	31	40	40		

Form A-F/PS2-C (2-78) | SIZE A | REVISION 7 | ASI DWG NO C7-1000 19-01-01 | SH NO 24

RED. 6X DATE 7-81
MA. NO. H-179 BLDR. NO. 19-01-01
FRAME NO. 7

RED. 6X DATE 7-81 MA. NO. H-179 BLDR. NO. 19-01-01 FRAME NO. 8

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	HOLD NOS. 1 2,3,4,5,6 & 7	DECKS	ADD NON-SKID TO FINAL COAT	G.N. 1, 2,3,4 & 23	1	30	52			
	2	↓	3'-0" DADO ABV DECKS		↓	1	30	52			
	3		LONG & TRANSV BHDS			1	30				
	4		UNDER-SIDE MN DECK			1	30				
	5		DUCTS, TRUNK EXT,ETC.			1	30				
	6		WALKWAYS LADDERS SUPPORTS			1	30				
	7		TRUSSES ETC			1	30				
	8		RAILINGS STANCH-IONS, FITTINGS	GALVANIZED DO NOT PAINT							
	9		SHEET METAL DUCTS	GALVANIZED DO NOT PAINT	↓						
	10	↓	FANS & BLOWER	VENDOR PAINTED	G.N. 23						
	11										

Form A-F/PS2-C (2-78)
SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 25

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	MACH SPACES CASING,SHAFT ALLEY & ESC	INSULA-TION		CLEAN		37	37			
	2	↓	S.M. SHEATH-ING		G.N. 21	32	31	37	37		
	3		CON-CEALED STEEL		G.N. 1, 2,3,4, 23	1	31	31			
3[3] 2[7] ↓	4		TANK TOP & 15'0" ABL DADO	ESCAPE FR 101-102 GETS N/S 3RD COAT	G.N. 1, 2,3,4, 23	1	30	50	34		
	5		BOTH SIDES OF FLOOR PLATES & ALL STEEL BELOW 15'-0" DADO		↓	1	30	50	34		
	6		DECKS & FLOOR PLATES ABOVE DADO			1	31	41	41		
	7		BHDS, SHELL & STEEL ABOVE DADO	EXPOSED		1	31	37	37		
	8		HATCHES & SCUTTLES	UNDERSIDES			30	31	37		
	9		HANDRAILS STANCHION & LADDERS			1	31	44	44		
	10	↓	MACHY FDNS ABOVE DADO		↓	1	31	39	39		
8[2]	11		~~BOX FDNS & SIM. VOIDS~~	~~INTERIOR FILL W/FOAM GN 35~~		~~1~~					

Form A-F/PS2-C (2-78)
SIZE A | REVISION 8 3 2 | ASI DWG NO C7-1000 19-01-01 | SH NO 26

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	SMOKESTACKS UPTAKES			G.N. 23 OR BLAST SP-6	NONE	46	46			
	2	OUTER SIDE OF INNER CASING			↓	↓	46	46			
	3	INNER SIDE OF OUTER CASING					46	46			
	4										
	5	PIPING, STEEL 200° F OR HIGHER	NOT INSULA-TED		G.N. 23 PICKLE	NONE	46	46			
	6	↓	INSULA-TED		↓	NONE	46	46			
2[9]	7	FOUNDATIONS & FERROUS PIPING BELOW 200°F	NOT GALV NOT INSUL	BELOW 15'-0" ABL DADO	GN 1,2, 3,4,23		30	50	34		
	8	PIPING, STEEL BELOW 200° F	GALV NOT INSULA-TED		G.N. 21	32	31	45	45		
	9	↓	GALV INSULA-TED	INSULATION ONLY TO BE PAINTED	CLEAN INSUL		45	45			
	10		NOT INSULA-TED		G.N. 23 PICKLE		31	45	45		
	11	↓	INSULA-TED	PIPE GETS PRIME, IN-SUL GETS FINISH	PICKLE PIPE, CLEAN INSUL		31	45	45		

Form A-F/PS2-C (2-78)
SIZE A | REVISION 2 | ASI DWG NO C7-1000 19-01-01 | SH NO 27

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	MACHY 200° F OR HIGHER	BOILER DRUMS & ASSOC-IATED PIPES,VALVES & FITTINGS,EVAPORATORS ETC PIPING & SHEET METAL AND THE ENTIRE								
	2	↓	BOILER & TURBINE CAS-INGS WHERE UNCOATED OR EXPOSED								
	3			NOT INSULATED	BLAST SP-6	NONE	46	46			
	4	↓		WHERE INSULATED	↓	NONE	46				
	5										
	6	MACHY BELOW 200° F	IF FACTORY PAINTED	TOUCH UP ONLY IF DAMAGED							
	7	↓	NOT FACTORY PAINTED		BLAST SP-6		35	35	39	39	
1[16]	8	FORCED DRAFT BLOW-ER DUCTS			G.N. 1, 2,3,4	1	31	45	45		
	9	ELECTRICAL EQUIP & MOTORS		TOUCH UP ONLY IF DAMAGED							
1[16]	10	ELEC CABLES CABLEWAYS, SUPPORT ETC		*FINISH TO MATCH SUR-ROUNDINGS	G.N. 23 OR BLAST SP-6		31	*	*		
	11										

Form A-F/PS2-C (2-78)
SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 28

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1										
	2	L.P. ENGINE T/G SET TUR-BINE			BLAST SP-6	NONE	46	46			
	3	LAGGING		*FINISH COATS TO MATCH SUR-ROUNDINGS	POWER TOOL		31	*	*		
	4										
	5	CLEAN WASTE RAG LOCKERS	EXTERIOR OF LOCK-ER	GALV	G.N. 21	32	31	40	40		
	6	OILY WASTE RAG LOCKERS		GALV	G.N. 21	32	31	40	40		
	7										
	8	STEEL LAD-DERS IN WORKING SPS	NOT IN MACHY SPACES	*FINISH COATS TO MATCH SUR-ROUNDINGS	G.N. 1, 2,3,4	1	31	*	*		
	9										
	10										
	11										

Form A-F/PS2-C (2-78)
SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 29

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	ENGINE ROOM TOILET	DECK	REF 1	POWER TOOL						
	2	↓	BHDS, OVHD & STEEL	EXPOSED	GN 1,2 3,4,23	1	31	37	37		
	3										
	4	ENGINEER'S-FILE ROOM, MACH SHOP & MACHINE	DECKS		G.N. 1, 2,3,4	1	31	38	38		
	5	SHOP STRM FR 85-90S 22'-6" FLAT	OVHDS, BHDS & SHELL	CONCEALED	↓	1	31	31			
	6		STEEL & EXP. METAL	EXPOSED	GN 23		31	37	37		
	7	↓	INSULA-TION		CLEAN		37	37			
	8										
	9	AIR COMP RM FR 85-90P 22'-6" FLAT	DECK		G.N. 1, 2,3,4	1	31	38	38		
	10		SHELL	VERMICULITE		1	31	31	GN 37	37	37
	11	↓	BHDS, OVHD & STEEL	EXPOSED	↓	1	31	37	37		

Form A-F/PS2-C (2-78)
SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 30

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	FWD STORES FR 21-44 40'-0" FLAT	DECK		G.N. 1, 2,3,4	1	31	41	41		
	2	↓	SHELL & FWD BHD	CONCEALED	↓	1	31	31			
	3		OVHD, BHDS & STEEL	EXPOSED	↓	1	31	40	40		
	4		EXP METAL		G.N. 23		31	40	40		
	5	↓	INSULA-TION		CLEAN		40	40			
	6										
	7	CO-2 ROOM FR 36-44 40'-0" FLAT	DECK		G.N. 1, 2,3,4	1	31	41	41		
	8	↓	SHELL	CONCEALED	↓	1	31	31			
	9		OVHD, BHDS & STEEL	EXPOSED	↓	1	31	40	40		
	10	↓	INSULA-TION		CLEAN		40	40			
	11										

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 33

Form A-F/PS2-C (2-78)

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	ELECT WKSHP FR 85-88P 40'-0" FLAT	DECK		G.N. 1, 2,3,4	1	31	38	38		
	2	↓	SHELL, BHDS & OVHD	CONCEALED	↓	1	31	31			
	3		INSULA-TION		CLEAN		37	37			
	4	↓	SHEATH-ING		G.N. 21	32	31	37	37		
	5										
1[2]	6	SEWAGE DISP EQUIP ROOM FR 44-52	DECK	ADD 1#N/S PER GAL 3 RD COAT	G.N. 1, 2,3,4	1	31	41	41		
	7	36'-0" FLAT	SHELL, OVHD & AFT BHD	CONCEALED		1	31	31			
	8		FWD BHD & STEEL	EXPOSED	↓	1	31	40	40		
	9	↓	INSULA-TION		CLEAN		40	40			
	10										
	11										

SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 32

Form A-F/PS2-C (2-78)

PAINT SCHEDULE

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	ENGR STRMS FR 85-90S FR 85-89P	DECKS		G.N. 1, 2,3,4	1	31	38	38		
	2	31'-6" FLAT	SHELL	VERMICULITE	G.N. 1, 2,3,4	1	31	31	GN 37	37	37
	3	↓	OVHDS, BHDS & STEEL	EXPOSED	G.N. 1, 2,3,4	1	31	37	37		
	4	PAINT LOCKER FR 89-90P 31'-6" FLAT	DECK		G.N. 1, 2,3,4	1	31	38	38		
7[1]	5		SHELL			1	31	37	37		
	6	↓	OVHDS, BHDS & STEEL	EXPOSED	↓	1	31	37	37		
	7	STOREROOM FR 85-90S 40'-0" FLAT	DECK		G.N. 1, 2,3,4	1	31	38	38		
	8		SHELL	VERMICULITE		1	31	31	GN 37	37	37
	9		OVHD	CONCEALED		1	31	31			
	10		BHDS	EXPOSED	↓	1	31	37	37		
	11	↓	SHEATH-ING		GN 21	32	31	37	37		

SIZE A | REVISION 7 | ASI DWG NO C7-1000 19-01-01 | SH NO 31

Form A-F/PS2-C (2-78)

PAINT SCHEDULE SECOND DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	VENT FR 47P	ALL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	2	BOSN STORES FWD OF FR 15	WOOD GRATING		G.N. 13	26	25	25			
	3	↓	DECK		G.N. 1, 2,3,4	1	31	41	41		
	4		BHDS, SHELL & OVHD		G.N. 1, 2,3,4	1	31	40	40		
	5	STORES CONT-AINER STOR-AGE FR 21-44	FIRE STATION BHDS		G.N. 1, 2,3,4	1	31	31	GN 37	40	40
	6		BHDS FR 34 & 34-44 STBD			1	31	31	GN 37	40	40
1[2]	7		DECK & HATCH COVERS	ADD 1-1/2# N/S PER GAL 3 RD COAT		1	31	41	41		
	8		FWD BHD, OVHD & SHELL	CONCEALED		1	31	31			
	9		BHD FR 44 & LADDER	EXPOSED	↓	1	31	40	40		
	10		SHEET METAL CEILING		G.N. 21	32	31	40	40		
	11	↓	INSULA-TION		CLEAN		40	40			

SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 34

Form A-F/PS2-C (2-78)

PAINT SCHEDULE SECOND DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
1[3]	1	CLEAN LINEN FR 44-46S	DECK		GN1,2,3,4	1	31	41	41		
			BULKHEAD	EXPOSED	GN 1,2,3,4	1	31	40	40		
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	↓	DECK	GRATINGS	NO PAINT						
			BULKHEAD	CONCEALED			31	31			
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	3		SHELL	CONCEALED	GN 1,2,3,4	1	31	31			
			BULKHEAD	SHEATHING	GN 21	32	31	40	40		
			OVERHEAD								
1[3]	4	SOILED LINEN FR 44-45.4P	DECK		GN1,2,3,4	1	31	41	41		
			BULKHEAD	EXPOSED	GN 1,2,3,4	1	31	40	40		
			OVERHEAD	CONCEALED	↓	1	31	31			
	5	↓	DECK	GRATINGS	NO PAINT						
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	6		DECK								
			BULKHEAD								
			OVERHEAD								
	7	PLENUM FR 34-36S	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	EXPOSED		1	31	40	40		
			OVERHEAD	EXPOSED		1	31	40	40		
1[3] 2[2]	8	REFUSE RM FR 36-44S	DECK	N/S 3RD COAT		1	31	41	41		
			BULKHEAD	EXPOSED		1	31	40	40		
			OVERHEAD	CONCEALED		1	31	31			
	9	↓	SHELL	EXPOSED	↓	1	31	40	40		
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
1[17]	10	REFUSE CHUTE AND HOPPER	ALL	INTERIOR	GN 1,2,3,4		33	33			
			ALL	EXTERIOR	↓		31	37	37		
1[3]	11	(SEE SHT 38) STAIRWELLS FR 50.4-52 P/S	DECK	N/S 3RD COAT	GN 1,2,3,4	1	31	38	38		
			BULKHEAD	EXPOSED	GN 1,2,3,4	1	31	37	37		
			OVERHEAD	EXPOSED	↓	1	31	37	37		

SIZE A | REVISION 2 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 35

Form A-F/PS1-C (2-78)

PAINT SCHEDULE SECOND DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	TOILET FR 47-48S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
1[4]	2	CLEANING GR LOCKER FR 46-47S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	3	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	4	DRY STORES FR 46-48S	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	5	↓	SHELL	CONCEALED	↓	1	31	31			
			BULKHEAD	SHEATHING	GN 21	32	31	40	40		
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	6	STWD STORES FR 44-45S	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	CONCEALED	↓	1	31	31			
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	7	↓	INSUL	EXPOSED	CLEAN		40	40			
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	8	STAIRWAY FR 46-47.4 S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9		DECK								
			BULKHEAD								
			OVERHEAD								
1[4]	10	PASSAGES FR 44-48	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	11	↓	DECK								
			BULKHEAD	INSULATION	CLEAN		40	40			
			OVERHEAD								

SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 36

Form A-F/PS1-C (2-78)

RED. 6X DATE 7-81
MA. NO. H-179 BLDR. NO. 19-01-01
FRAME NO. 9

PAINT SCHEDULE SECOND DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	CREW REC RM FR 44-47P	DECK	REF 1	PWR TOOL						
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	CREW MESS FR 47-52P	DECK	REF 1	PWR TOOL						
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	3		DECK								
			BULKHEAD								
			OVERHEAD								
	4	STAIRWAY FR 46-47P	DECK	REF 1	PWR TOOL						
			BULKHEAD								
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	5		DECK								
			BULKHEAD								
			OVERHEAD								
	6	OFFICER DINING RM FR 48-52S	DECK	REF 1	PWR TOOL						
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	7		DECK								
			BULKHEAD								
			OVERHEAD								
	8	GALLEY FR 48-50.7 C.L.	DECK	REF 1	PWR TOOL						
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9		DECK								
			BULKHEAD								
			OVERHEAD								
	10	SERVING AREA FR 50.7-52 C.L.	DECK	REF 1	PWR TOOL						
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	11		DECK								
			BULKHEAD								
			OVERHEAD								

Form A-F/PS1-C (2-78)

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 37

PAINT SCHEDULE SECOND DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	STAIRWELLS FR 50.4-52 P/S	EXPOSED SHELL		G.N. 1, 2,3,4	1	31	31	GN 37	37	37
	2	↓	TREADS & RISERS GOING UP	REF 1	POWER TOOL	1					
	3										
	4	PIPE & ACCESS TUNNEL P/S FR 52-121	EXPOSED SHELL		G.N. 1, 2,3,4	1	31	31	GN 37	37	37
	5		BHDS & OVHDS EXPOSED			1	31	37	37		
	6		DECKS & HATCH TOPS	ADD NON-SKID TO FINAL COAT		1	31	38	38		
	7		HATCH SIDES COAMINGS			1	31	37	37		
	8	↓	HATCH UNDER-SIDES		↓	1	31	40	40		
	9										
	10	CRANEWAY EXTENSIONS P/S AFT OF FR 132	ALL INTERIOR		G.N. 1, 2,3,4 & 23	1	23	24			
	11										

Form A-F/PS2-C (2-78)

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 38

PAINT SCHEDULE SECOND DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	PASSAGES FR 121-132 P/S	DECK	N/S 3RD COAT	GN 1,2,3,4	1	31	38	38		
			BULKHEAD	INBD-EXPOSED		1	31	37	37		
			OVERHEAD	EXPOSED		1	31	31	GN 37	37	37
	2	↓	SHELL	EXPOSED		1	31	31	GN 37	37	37
			BULKHEAD	EXPOSED	↓	1	31	31	GN 37	37	37
			OVERHEAD								
	3	PASSAGE FR 121-123 TRANSV	DECK	N/S 3RD COAT	GN 1,2,3,4	1	31	38	38		
			BULKHEAD	EXPOSED		1	31	31	GN 37	37	37
			OVERHEAD	EXPOSED	↓	1	31	31	GN 37	37	37
	4	↓	DECK								
			BULKHEAD	EXP METAL	GN 23		31	37	37		
			OVERHEAD								
	5	STEERING GR ROOM FR 123-132 C.L.	DECK	N/S 3RD COAT	GN 1,2,3,4	1	31	38	38		
			BULKHEAD	EXPOSED		1	31	31	GN 37	37	37
			OVERHEAD	EXPOSED	↓	1	31	31	GN 37	37	37
	6	↓	DECK								
			BULKHEAD	EXP METAL	GN 23		31	37	37		
			OVERHEAD								
	7	PAINT LKR FR 130-132 S	DECK	N/S 3RD COAT	GN 1,2,3,4	1	31	38	38		
			BULKHEAD	EXPOSED	GN 1,2,3,4	1	31	37	37		
			OVERHEAD	EXPOSED	↓	1	31	37	37		
1[18]	8	DECK MAINT SHOP FR 123-130S	DECK	N/S 3RD COAT	GN 1,2,3,4	1	31	38	38		
			BULKHEAD	EXPOSED		1	31	31	GN 37	37	37
			OVERHEAD	EXPOSED	↓	1	31	31	GN 37	37	37
	9	↓	DECK								
			BULKHEAD	EXP METAL	GN 23		31	37	37		
			OVERHEAD								
	10	BOSN STORES & HAWSERS FR 123-132P	DECK	N/S 3RD COAT	GN 1,2,3,4	1	31	38	38		
			BULKHEAD	EXPOSED		1	31	31	GN 37	37	37
			OVERHEAD	EXPOSED	↓	1	31	31	GN 37	37	37
	11	↓	DECK	WOOD ROPE RACK	GN 13	26	25	25			
			BULKHEAD	EXP METAL	GN 23		31	37	37		
			OVERHEAD								

Form A-F/PS1-C (2-78)

SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 39

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
1[5]	1	DK STORAGE LOCKERS FR 59-61 P/S	DECK	N/S 4 TH COAT	GN 1,2,3,4	1	2	3	4	9	
			BULKHEAD	INTERIOR		1	31	40	40		
			OVERHEAD	INTERIOR	↓	1	31	40	40		
1[5]	2	DK LOCKERS FR 58-59 P/S	DECK	N/S 4 TH COAT	GN 1,2,3,4	1	2	3	4	9	
			BULKHEAD	INTERIOR		1	31	40	40		
			OVERHEAD	INTERIOR	↓	1	31	40	40		
1[5]	3	STACKHOUSE MAIN DECK FR 85-91P	DECK	N/S 4 TH COAT	GN 1,2,3,4	1	2	3	4	9	
			BULKHEAD	INTERIOR		1	31	37	37		
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	↓	DECK								
			BULKHEAD								
			OVERHEAD	INSULATION	CLEAN		37	37			
1[5]	5	STACKHOUSE MAIN DECK FR 85-91S	DECK	N/S 4 TH COAT	GN 1,2,3,4	1	2	3	4	9	
			BULKHEAD	INTERIOR		1	31	37	37		
			OVERHEAD	INTERIOR	↓	1	31	37	37		
1[17]	6	STACKHOUSES VENT/PLENUM FR 84-86 P/S	DECK	INTERIOR	GN 1,2,3,4	1	2	3	4	9	
			BULKHEAD	INTERIOR		1	2	3	5	7	
			OVERHEAD	INTERIOR	↓	1	2	3	5	7	
	7	STACKHOUSE 67'-6" ABL FR 85-91S	DECK		GN 1,2,3,4	1	31	38	38		
			BULKHEAD	EXPOSED		1	31	37	37		
			OVERHEAD	EXPOSED	↓	1	31	31			
	8	EMERG GEN ROOM FR 84-91P	DECK		GN 1,2,3,4	1	31	38	38		
			BULKHEAD	CONCEALED		1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9	↓	DECK								
			BULKHEAD	INSULATION	CLEAN		37	37			
			OVERHEAD	INSULATION	CLEAN		37	37			
	10	BATTERY LOCKER	DECK		GN 1,2,3,4	1	31	38	38		
			BULKHEAD	CONCEALED		1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	11	↓	DECK								
			BULKHEAD	SHEATHING	GN 21	32	31	37	37		
			OVERHEAD	SHEATHING	GN 21	32	31	37	37		

Form A-F/PS1-C (2-78)

SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 40

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	STWD/COOK OFFICE FR 31-34S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	SPARE, GEN UTIL NO 1&2 SRS FR 34-44 S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	3	T/S SPACES	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	4	WIPER, Q MED NO 12&3 SRS FR 31-44 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	5	T/S SPACES	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	6	GEN UTIL NO 3 BAKER/COOK SRS FR 44-46.6S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	7	T/S SPACE	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	8	STEWARD/ COOK SR & WR FR 46.6-48S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9	T/S SPACE	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	10	BOSUN SR & WR FR 48-49.5S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	11	T/S SPACE	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			

Form A-F/PS1-C (2-78)

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 41

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	1st	2nd	3rd	4th	5th
	1	OS NO 1 & 2 SRS FR 44-46P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	T/S SPACE	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	3	Q. MED DAY WKR & TECH-NICIAN SRS FR 46-48P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	T/S SPACE	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	5	MAINT ELECTR SR & WR FR 48-49S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	6	T/S SPACE	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	7	ABS NOS 1,2 3,4,5,&6 SR FR 48.7-51	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	8	T/S SPACES	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	9		DECK								
			BULKHEAD								
			OVERHEAD								
	10	HOSPITAL FR 46.5-48.2S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	11	T/TUB SPACE	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			

Form A-F/PS1-C (2-78)

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 42

RED. 6X DATE 7-81
MA. NO. H-179 BLDR. NO. 19-01-01
FRAME NO. 10

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
3[4]	1	VOID IN STAIRWAY AREA FR 27-31 PORT	DECK		GN 1234	1	31	31			
			BULKHEAD		GN 1234	1	31	31			
			OVERHEAD		↓	1	31	31			
	2	PASSAGES FR 31-49	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	3	RECESSES FIRE STNS & DRINKING FOUNT	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	4		DECK								
			BULKHEAD								
			OVERHEAD								
	5	VESTIBULES FR 49-51 P/S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	6		DECK								
			BULKHEAD								
			OVERHEAD								
	7	STAIRWELLS FR 50 P/S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	8		DECK								
			BULKHEAD								
			OVERHEAD								
	9	STAIRWAY FR 46.8-48.2 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
1[6]	10	STAIRWAY FR 45-46S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	11		DECK								
			BULKHEAD								
			OVERHEAD								

Form A-F/PS1-C (2-78) | SIZE A | REVISION 3 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 45

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	EMERG ELECT CENTER FR 45.6-46.8P	DECK	MAT REF 1	GN 1234	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	2	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	3	STOREROOMS FR 21-31 P/S	DECK		GN 1234	1	31	41	41		
			BULKHEAD	EXPOSED	GN 1234	1	31	40	40		
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	↓	DECK								
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	5	↓	DECK								
			BULKHEAD	INSULATION	CLEAN		40	40			
			OVERHEAD								
	6		DECK								
			BULKHEAD								
			OVERHEAD								
	7	BOSN'S STORES	DECK		GN 1234	1	31	41	41		
			BULKHEAD	EXPOSED		1	31	40	40		
			OVERHEAD	EXPOSED	↓	1	31	40	40		
	8		DECK								
			BULKHEAD								
			OVERHEAD								
	9		DECK								
			BULKHEAD								
			OVERHEAD								
	10		DECK								
			BULKHEAD								
			OVERHEAD								
	11		DECK								
			BULKHEAD								
			OVERHEAD								

Form A-F/PS1-C (2-78) | SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 44

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	STWD DEPT BAGGAGE RM FR 33-36 C.L.	DECK		GN 1234	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	2	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	3	DK DEPT BAGGAGE RM FR 36-39 C.L.	DECK		GN 1234	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	4	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	5	ENG DEPT BAGGAGE RM FR 44-45 C.L.	DECK		GN 1234	1	31	41	41		
			BULKHEAD	CONCEALED		1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	6	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	7	CREW LAUNDRY FR 39-44 C.L.	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
8[2]	8	↓	DECK	FDNS-GN35		1					
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	9	C.G. LKRS FR 36-39P FR 44-45S	DECK	REF 1	PWR TOOL						
			BULKHEAD	CONCEALED	GN1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	10	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	11		DECK								
			BULKHEAD								
			OVERHEAD								

Form A-F/PS1-C (2-78) | SIZE A | REVISION 8 | ASI DWG NO C7-1000 19-01-01 | SH NO 43

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	ELECTR. LKR FR 46.8-48.2P	DECK		GN 1234	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	2	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	3	LINEN LKR FR 46.8-48.2P	DECK		GN 1234	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	4	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	5	OIL SKIN LOCKER FR 48 S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	6	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	7	STEVEDORES TOILET FR 51 S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	GN 1234	1	31	31			
	8	↓	DECK								
			BULKHEAD	SHEATHING	GN 21	32	31	40	40		
			OVERHEAD	SHEATHING	↓	32	31	40	40		
	9	TALLEY CLERK OFF FR 51 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	10	↓	DECK								
			BULKHEAD	SHEATHING	GN 21	32	31	40	40		
			OVERHEAD	SHEATHING	↓	32	31	40	40		
	11		DECK								
			BULKHEAD								
			OVERHEAD								

Form A-F/PS1-C (2-78) | SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 46

PAINT SCHEDULE MAIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	LAUNDRY CHUTE FR 44 P	ALL	INTERIOR	G.N. 1, 2,3,4	1	31	40	40		
	2										
	3	VENT TRUNK FR 48 C.L.	ALL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	4	VENT TRUNK FR 51 P/S	ALL	INTERIOR	G.N. 1, 2,3,4 & 22	1	2	3	5	7	
	5	VENT TRUNK FR 43 P/S	ALL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	6										
	7	EXHAUST DUCT FR 51 C.L.	ALL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	8										
	9	SHIP STORES TRUNK FR 21-27	ALL	INTERIOR	G.N. 1, 2,3,4	1	31	40	40		
	10										
	11										

Form A-F/PS2-C (2-78) | SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 47

PAINT SCHEDULE UPPER DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	CHIEF ENGRS DAY RM FR 31-41 C.L.	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	CHIEF ENGRS SR & WR FR 32-41S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	3	CHIEF ENGRS & 3RD ASST NO 1 T/S SP FR 41-44S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	3RD ASST ENGR NO 1 SR & WR FR 44-45 1/3S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	5	1ST ASST ENGR OFFICE FR 31-41P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	6	1ST ASST ENGRS SR & WR FR 32-41 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	7	1ST & 2ND ASST ENGR T/S SPACES FR 41-44P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	8	2ND ASST ENGR SR & WR FR 44-45.6P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9	3RD ASST ENGR NO 3 SR & WR FR 45.6-47P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	10	3RD ASST ENGRS NO 2 & NO 3 T/S SP FR 47-47.8P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	11	3RD ASST ENGR NO 2 SR & WR FR 47.8-49.2P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1234	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			

Form A-F/PS1-C (2-78) | SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 48

RED. 6X DATE 7-81
MA. NO. H-179 BLDR. NO. 19-01-01
FRAME NO. 11

RED. 6X DATE 7-81 MA. NO. H-179 BLDR. NO. 19-01-01 FRAME NO. 12

PAINT SCHEDULE UPPER DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	PIPE CHASE FR 43-44 C.L.	ALL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	2	VOID FR 47-47.8 P	ALL	CONCEALED	↓	1	31	31			
	3	VENT TRUNK FR 48 C.L.	ALL	CONCEALED	↓	1	31	31			
	4	PIPE CHASE FR 46-47 C.L.	ALL	CONCEALED	↓	1	31	31			
	5	VENT FR 48 P	ALL	CONCEALED	↓	1	31	31			
	6										
	7	VOID FR 45.6-46 P	ALL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
1[8]	8	VOID 5" FWD FR 49 TO 2'-8" AFT FR 49P	ALL	CONCEALED	↓	1	31	31			
	9	LAUNDRY CHUTE FR 44 P	ALL	INTERIOR	G.N. 1, 2,3,4	1	31	40	40		
	10										
	11										

Form A-F/PS2-C (2-78)

SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 51

PAINT SCHEDULE UPPER DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	OFFICER'S LAUNDRY FR 47.3-49.8S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
8[2]	2	↓	DECK	FDNS-GN35		1					
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	3	LAUNDRY LOCKER FR 47-47.3 S	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	5	ENGINEER'S BAGGAGE RM FR 41-44S	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	6	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
1[7]	7	LOCKER FR 41-44P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	8	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	9	LINEN LOCKER FR 47-47.8P	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	10	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		
	11		DECK								
			BULKHEAD								
			OVERHEAD								

Form A-F/PS1-C (2-78)

SIZE A | REVISION 8 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 50

PAINT SCHEDULE UPPER DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	2 CADETS SR & WR FR 44-46.5 C.L.	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	CADETS T/S FR 44-45S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	3	RELIEF OFFICERS CHG RM & WR FR 46 2/3-49.4P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	CHANGE RM T/S FR 46 2/3-47½ C.L	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	5	OFFICERS LOUNGE FR 45.7-49.2 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	6		DECK								
			BULKHEAD								
			OVERHEAD								
	7	PASSAGES FR 41-50.4	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	8	VESTIBULES FR 49.2-50.4 P/S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9	STAIRWAYS FR 44.9-47 S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	10	CLEANING GR LKR FR 49.4-49.8P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	11	↓	DECK								
			BULKHEAD								
			OVERHEAD	SHEATHING	GN 21	32	31	40	40		

Form A-F/PS1-C (2-78)

SIZE A | REVISION | ASI DWG NO C7-1000 19-01-01 | SH NO 49

PAINT SCHEDULE CABIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	CAPTAIN'S DAY RM FR 31-41 C.L.	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	CAPTAIN'S SR & WR FR 32-41S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	3	CAPTAIN'S T/S FR 38-41S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	CHIEF MATE'S SR & WR FR 31-41P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	5	CHIEF MATE'S T/S FR 33-36P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	6	2ND MATE SR & WR FR 41-45 1/3S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	7	2ND MATE T/S FR 41-44S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	8	3RD MATE NO 1 SR & WR FR 45 1/3-47 1/4S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9	3RD MATE NO 1 & NO 2 T/S SPACES FR 47 1/4-48S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	10	3RD MATE NO 2 SR & WR FR 48-50S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
1[8]	11	CHIEF MATE'S DAY ROOM FR 33-41 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			

Form A-F/PS1-C (2-78)

SIZE A | REVISION 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 52

PAINT SCHEDULE CABIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	2 PASSENGER SR & WR FR 41-45P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	2 PASSENGER T/S FR 41-44P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	3	RADIO OFFICER SR & WR FR 45-47P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	4	RADIO OFFICER T/S FR 46-47P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	5	RADIO ROOM FR 47-50P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
11[2]	6	BATTERY LOCKER FR 49 1/2-50P	DECK	& SHELVES	GN 1,2,3,4	1	31	41	41		
			BULKHEAD	EXPOSED	↓	1	31	37	37		
			OVERHEAD	↓	↓	1	31	37	37		
	7		DECK								
			BULKHEAD								
			OVERHEAD								
	8	PILOT/NIGHT MATE SR & WR FR 43-45 S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	9	PILOT/NIGHT MATE T/S FR 45-46S	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	10	PASSAGES P/S FR 39 3/4-50	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
1[8]	11	LOCKER FR 45 STBD	DECK		GN. 1,2,3,4	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			

Form A-F/PS1-C (2-78)

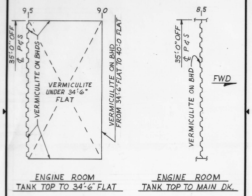
SIZE A | REVISION 11 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 53

PAINT SCHEDULE CABIN DECK

REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM				
							1st	2nd	3rd	4th	5th
	1	CLEANING GR LOCKER FR 43-44 1/3 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
	2	LAUNDRY CHUTE	DECK								
			BULKHEAD		GN 1,2,3,4	1	31	40	40		
			OVERHEAD								
1[9]	3	BAGGAGE LKR FR 49 1/3-45.3 P	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	4		DECK								
			BULKHEAD								
			OVERHEAD								
1[9]	5	LINEN LKR FR 45.3-46P	DECK		GN 1,2,3,4	1	31	41	41		
			BULKHEAD	EXPOSED	GN 1,2,3,4	1	31	40	40		
			OVERHEAD	CONCEALED	↓	1	31	31			
	6		DECK								
			BULKHEAD								
			OVERHEAD								
	7	STAIRWAY FR 43-45.3P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	JOINER							
			OVERHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
	8		DECK								
			BULKHEAD								
			OVERHEAD								
	9	STAIRWAY FR 45.4-46.8 P	DECK	REF 1	PWR TOOL	1					
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
10[3]	10	FAN ROOM FR 46-50 C.L.	DECK	W/S 4TH COAT	GN 1,2,3,4	1	2	3	4	9	
			BULKHEAD	CONCEALED	GN 1,2,3,4	1	31	31			
			OVERHEAD	CONCEALED	↓	1	31	31			
11[2]	11	↓	DECK								
			BULKHEAD	SHEATHING	GN 21	32	31	40	40		
			OVERHEAD								

Form A-F/PS1-C (2-78)

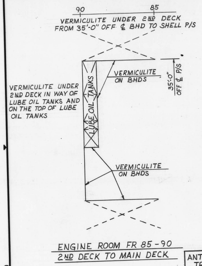
SIZE A | REVISION 11 10 1 | ASI DWG NO C7-1000 19-01-01 | SH NO 54



ANTI-SWEAT TREATMENT KEY PLAN

Form A-WS-C (1-78)

SIZE	REVISION	ASI DWG NO
A	7	C7-1000 19-01-01
		SH NO 57



ANTI-SWEAT TREATMENT KEY PLAN

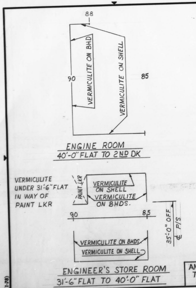
Form A-WS-C (1-78)

SIZE	REVISION	ASI DWG NO
A	7	C7-1000 19-01-01
		SH NO 56

PAINT SCHEDULE BRIDGE DECK											
REV	LINE NO	COMPARTMENT	SURFACE	REMARKS	SURFACE PREP	PRE-PRIME	COATING SYSTEM 1st	2nd	3rd	4th	5th
	1	PILOT HOUSE & CHART ROOM	BHDS, OVHDS & STEEL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	2	↓	DECK	REF 1	POWER TOOL	1					
	3										
	4	TOILET	OVHD & STEEL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	5	↓	DECK	REF 1	POWER TOOL	1					
	6										
	7	EMERGENCY GEAR LOCKER	BHDS OVHDS & STEEL	CONCEALED	G.N. 1, 2,3,4	1	31	31			
	8	↓	SHEET METAL SHEATH-ING	GALVANIZED	GN 21	32	40	40			
	9	↓	DECK	REF 1		1					
	10										
	11										

Form A-F/PS2-C (2-78)

SIZE	REVISION	ASI DWG NO
A		C7-1000 19-01-01
		SH NO 55

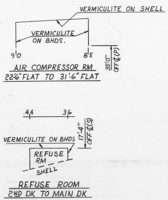


ANTI-SWEAT TREATMENT KEY PLAN

Form A-WS-C (1-78)

SIZE	REVISION	ASI DWG NO
A	7	
		SH NO 58

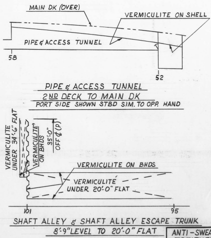
REFUSE



ANTI-SWEAT TREATMENT KEY PLAN

Form A-WS-C (1-78)

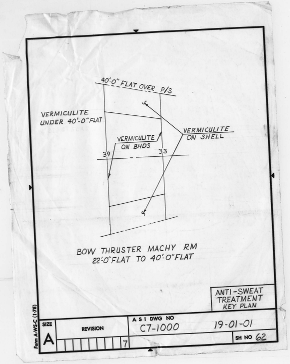
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A	7	C7-1000 19-01-01
		SH NO 59

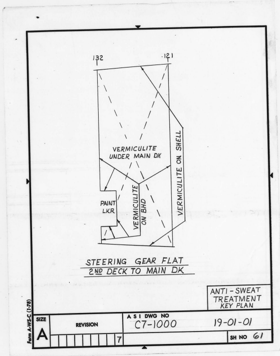


ANTI-SWEAT TREATMENT KEY PLAN

Form A-WS-C (1-78)

SIZE	REVISION	ASI DWG NO
A	7	C7-1000 19-01-01
		SH NO 60





RED. 6X DATE 7-81
MA.NO.H-179 BLDR. NO.19-01-01
FRAME NO.14

RED. 8X DATE 7-81
MA. NO. H-180 BLDR. NO. 22-01-02
FRAME NO. 1

LIST OF MATERIAL (QUANTITIES FOR ONE SHIP)

MOG NO.	ITEM NO.	QTY	DESCRIPTION	MATERIAL	SPEC ORDER DATA	REMARKS	ZONE
H-5	1	1	RUDDER CASTING	CAST STEEL	A.B.S. HULL GR.	SEE DET 8-D & GEN. NOTES 1, 10, 12, 13, 16, 17, 18 & 23	8-D
H-7	2	1	PINTLE	FGD STEEL	A.B.S. GR. 2	SEE DETS 9-C1, 13-C & GEN. NOTES 2, 20 & 21	9-C1
H-9	3	1	PINTLE NUT	↓	↓	SEE DETS 10-D & 13-B & GEN NOTE 2 IDENTICAL TO PC 2 ON REF 2	10-D
H-14	4	1	PINTLE BUSHING	TIN BRONZE	ASTM B584-73 ALLOY 922 (2-A)	CENTRIFUGALLY CAST DET 11-C & 13-A & GEN NOTE #19.	11-C 13-A
H-13-1	5	1	SLEEVE	COPPER NICKEL ALLOY	ASTM B369-72 ALLOY 964-(B)	CENTRIFUGALLY CAST DET 10-C & 12-B & GEN NOTE 19	10-C 12-B
H-13-2	6	1	CAP	70-30 CUPRO NICKEL, ANNEALED	ASTM B171 ALLOY 715 OR MIL SPEC MIL-C-15726E	STATICALLY CAST DET 10-C & GEN NOTE 19	10-C
H-10-1	7	2	STAVE TYPE "K"	MICARTA	MIL SPEC MIL-18324-D	DET 11-A1 & G.N. 8	11-A1
H-10-2	8	8	↓ ↓ "W"	↓	↓	↓	↓
H-10-3	9	6	"X"				
H-10-4	10	8	"Y"				
H-10-5	11	2	"Z"				
	12	1	LIFTING EYE	FGD STL	COMM'L	DET 11-D2	11-D2
	13	1	CAP SCREW HEX HD 1 1/4-7UNC-2A x 2 3/4" LG	STN STL	TYPE 316	TO BE USED AS PLUG WHEN LIFTING EYE IS NOT USED	10-A
	14	8	DOWEL PIN	↓	↓	DET 11-D1	11-D1
	15	8	HEX HD BOLT 1"-8UNC-2A x 2 1/2" LG	"K" MONEL			10-A
	16	7	1 1/2" COUNTERSUNK PIPE PLUG (VENT & DRAIN)	STN STL	COMM'L		5-D & A 6-B 6-D
	17	4	LIFTING TUBE PLUG	WHITE OAK	↓	6" DIA (AT LARGE END) x 9" LG TAPER 1/2" PER FT ON DIA - TRIM TO SUIT	6-A1

SUSTAINED SEA SPEED AT SUMMER LOAD LINE = 20.5 KNOTS
RUDDER TORQUE: AHEAD AT 40° = 9,812,215 IN. LBS.
ASTERN AT 40° = 11,590,448 IN. LBS.

— NOTE: —
APPROX SHIPPING WEIGHT
RUDDER FRAME CASTING - 40,000 LBS.

GENERAL NOTES

1. Rudder casting, Det 8-D, is to conform to and meet all the requirements of the American Bureau of Shipping Rules For Building And Classing Steel Vessels, 1977, Section 43, Hull Steel Castings.
2. Pintle, Det. 9-C1, and Pintle Nut, Det. 10-D, are to conform to and meet all the requirements of the American Bureau of Shipping Rules For Building And Classing Steel Vessels, 1977, Section 43, Grade 2 Forgings.
3. All welding to be in accordance with the American Bureau of Shipping Rules and Reference #3.
4. This radius dimension to be half breadth of rudder at centerline stock.
5. ~~This dimension to be half breadth of rudder at centerline stock plus 2".~~
6. Wedge staves ("Z") should be installed with a light drive fit. The 2 wedge staves should be driven simultaneously.
7. Soft wood filler strips may be driven into spring stave ("W") openings to steady the staves and to prevent undue bowing. Filler strips must be removed after completion of the boring operation.
8. Bearing staves shall be fitted with laminations perpendicular to the rudder stock.
9. The faying surface between the wrapper plate and the rudder plate is to be heavily coated with red lead paste.
10. All rabbets, bevels and weld grooves are to be incorporated in casting. Patternmaker to provide fillets and drafts as required.
11. Actual dia. of finished surfaces in Section 11-A are to be taken from field measurements of corresponding gudgeon bores, Ref. #1, plus .004" to .008" interference on dia.
12. Rudder casting is to be internally inspected by industrial radiography in area shown in Det. 8-D. Radiographic inspection is to be as outlined in ASTM-A280-72 for Severity Level Five. See G.N. 25.
13. Rudder casting shall be surface inspected all over by magnetic particle inspection in accordance with ASTM-E109-63 using direct current, with ASTM-E125-63, Type I-Degree 2A, Type II-Degree 3, Type III-Degree 4, Type IV-Degree 3, Type V-Degree V-2 magnetic particle defects being acceptable and to American Bureau of Shipping surveyor's satisfaction.
14. Rudder to be filled with 2 lb. density polyeurethane foam.
15. This electric weld is to be made after sleeve has been shrunk on pintle using copper nickel electrodes-AWS E CU NI (See Det. 10-A).
16. Rudder casting is to be fully annealed.
17. Rudder casting shall be sandblasted or otherwise thoroughly cleaned at the foundry for purpose of exposing possible cooling cracks.
18. All machining on rudder casting, rough and finished, to be done by A.S. Inc. Foundry shall core for rudder stock and pintle as required and cores shall be concentric to rudder stock and pintle centerlines.
19. Non-ferrous castings shall conform to and meet all the requirements of the American Bureau of Shipping Rules For Building And Classing Steel Vessels, 1977, including hydrostatic testing at 15 P.S.I.
20. Forgings shall be stress relieved before machining.
21. The pintle shall be rough turned to the dimensions shown in Det. 13-C to 500 RMS with a tolerance of 0 inch under and 1/8 inch over the dimensions shown. Dimensions are to the underside of the tool cut.
22. All plates and bars to be ABS Gr A unless otherwise noted.
23. Steel casting quality and composition to be in substantial agreement with ASTM-A27 (Grade 60-30).
24. LAST PIECE MARK ON THIS DRAWING IS 91 ON DET 8-A1
25. ULTRASONIC INSPECTION MAY BE SUBSTITUTED FOR RADIOGRAPHIC INSPECTION, G.N. 12, USING AVONDALE SHIPYARD INC. TECHNICAL INSTRUCTION 28.5.15 "ULTRASONIC INSPECTION OF RUDDER CASTING" THAT PROVIDES AN ACCEPTANCE STANDARD SIMILAR TO THAT OF ASTM-E-71-52 SEVERITY LEVEL 5. TESTING IS TO BE PREFORMED TO THE SATISFACTION OF THE ATTENDING SURVEYOR. AREAS OF ULTRASONIC INSPECTION TO BE AS SHOWN IN DET 8-D THUS (RT)

REFERENCES

REV.	NO	TITLE	DRAWING NO
	5	PAINTING & DECK COVERING SCHEDULE	19-01-01
	4	STRESS CALCULATIONS FOR RUDDER & RUDDER HORN	22-01-01
	3	WELDING DETAILS	29-06-01
	2	RUDDER SUPPORT SYSTEM	22-01-03
	1	STERN FRAME, RUDDER HORN & SHAFT STRUT CASTINGS	11-08-01

REVISIONS

REV	ZONE	ITEM	DESCRIPTION
1	4, 7,6, 8, 9	1.	DET 6-B INCREASED WIDTH OF CASTING AND CHANGED LOCATION OF AFT VERTICAL WEB. WAS "HALF BREADTH OF RUDDER AT ℄ STOCK PLUS 2" NOW 22 3/4. REVISED DET. 8-D, 4-A, 9-D ADDED SECT. 7-C1 AND DELETED GEN NOTE NO. 5 TO SUIT ABS REQUIREMENTS.
		2.	ADDED RES No. 2
	2	3	ADDED DESIGN SPEED AS AGREED TO WITH WATERMAN S/S CO.
			REV 0 APPROVED BY FRIEDE & GOLDMAN LTR DATED JAN 25, 1978 SERIAL # L-772/5
			REV 1 ISSUED FOR FOUNDRY & A.S.I. USE ONLY. BY C.G.G. APVD. [signature]
2		1.	INCREASED DIA. OF PINTLE, DET. 9-C1 & 13-C, TO SUIT ABS REQUIREMENTS. INCREASED DIA. OF SLEEVE, DET. 10-C & 12-B & BUSHING, SECT. 11-A & DET. 13-A. REVISED STAVE ARRGT., DET. 11-C, SIZE OF STAVES IN DET. 11-A & QTY. OF ITEM 9 IN L/M TO SUIT LARGER DIA.
		2.	DET. 7-A- REVISED MACHINING TO SUIT ITEM 1.
		3.	RELEASED RES. #2.
			REV 0 APPROVED BY A.B.S. LTR DTD FEB 14, 1978 BY: J.T. APPVD.: [signature]
3	1	1	DELETED RES #1
	VAR	2	SECT 4-A, DETS 6-A, 6-C1 & 8-A1 ADDED LIFTING TUBES. ADDED DET 6-C3. ADDED PC NOS 83 THRU 91. DELETED DET 12-C.
	2	3	REVISED NOTE. WAS "DESIGN SPEED 20.5 KNOTS." ADDED RUDDER TORQUE.
			REV 3 ITEM 3 IN ACCORDANCE WITH F & G LTR SERIAL # L-772/99 DATED 3/17/78 & ABS LTR 5/2/78.
4	6, 2	1	DET 6-A ADDED OAK PLUGS TO LIFTING TUBES. DELETED COVER PLS, PC #87. ADDED ITEM #17 TO L/M. REV DETS 6-C3, 6-A & 8-A1 TO SUIT.
	5, 2	2	DET 5-A ADDED 3 DRAIN PLUGS. REVISED QTY OF ITEM 16 IN L/M
			REV 4 IN ACCORDANCE WITH F & G LTR SERIAL # L-772/320 DATED 6/6/78
5	2	1	LIST OF MATERIAL: REV. NOS. 7 THRU 11 MIL. SPECS. TO READ 18324-D & NO. 6 REV. MATERIAL & SPEC ORDER DATA. ITEM NO: 1 INCORPORATES REV. NOTICE H-165.
	2	2	ADDED G.N. 25 (ULTRASONIC INSPECTION) & REV G.N. 12 TO SUIT

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		SER # L-772/5 DTD 1/25/78	2/14/78			
1						
2		SER # L-772/99 DTD 3/17/78	5/2/78			
3	5-29-78 [initials]	SER # L-772/320 6/6/78	7/12/78			
4		SER # L-772/496 7/19/78	8/4/78			
5	3-30-79 [initials]	NOT REQ'D				
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
2	~~DETS AND SECTIONS 7-A, 10-A, 9-C1, 10-C, 11-A, 11-C, 12-B, 13-C & 13-A PENDING DEVELOPMENT.~~
1	~~LOCATION & SIZE OF LIFTING TUBES, DET 12-C.~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY PD DATE 12-14-77
CHECKED BY CG DATE 12-21-77
APVD MHG 12-23-77
APVD J.J. Murphy 12/23/77 PROJECT MANAGER
APVD [signature] VP/CHIEF ENGINEER

RUDDER

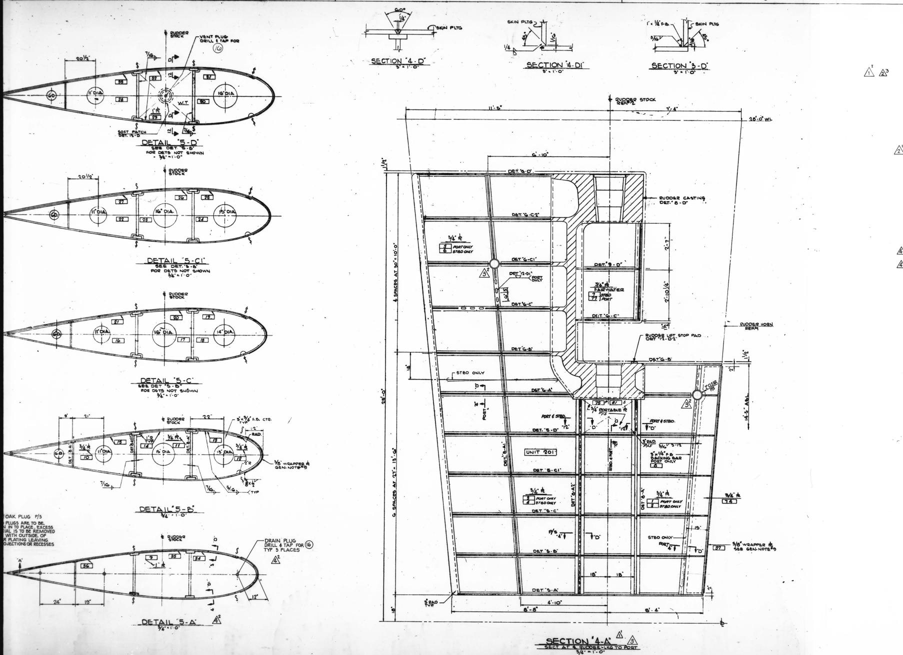
SIZE H — A S I DWG NO C7-1000 22-01-02 — REV 5
SCALE AS NOTED — KEY PLAN

A S I DWG NO C7-1000 22-01-02 REV 5

DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
FRIEDE & GOLDMAN	
F & G (Y)	
TOTAL	
DATE OF PRINT ISSUE	

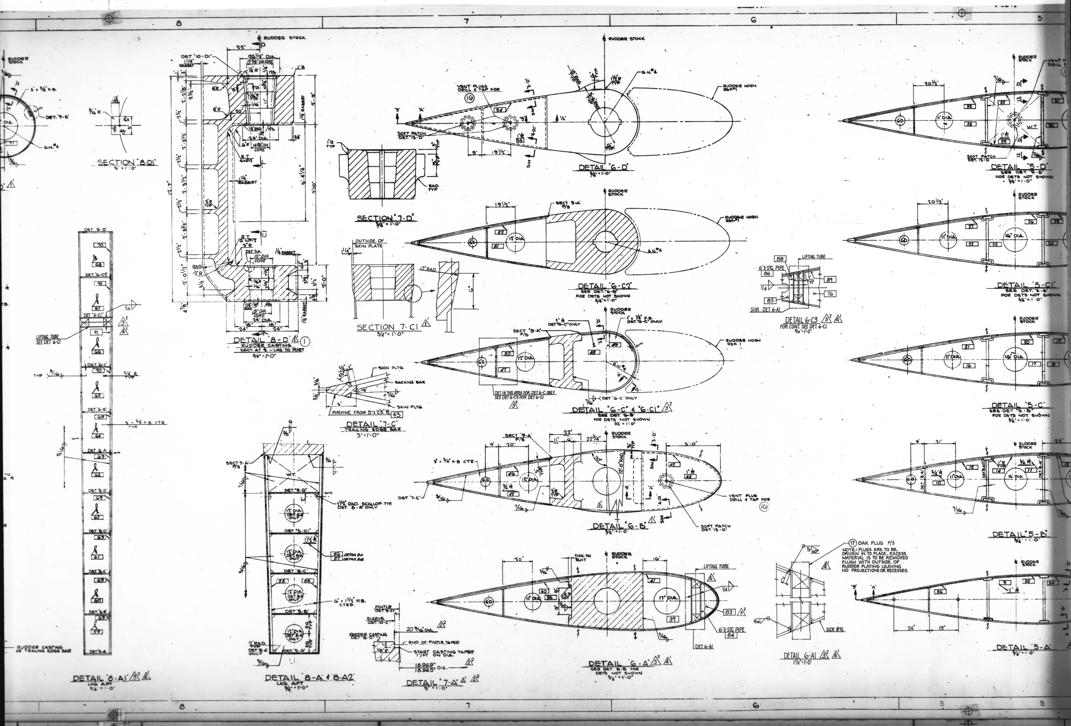
C7-1000 SS-01-02



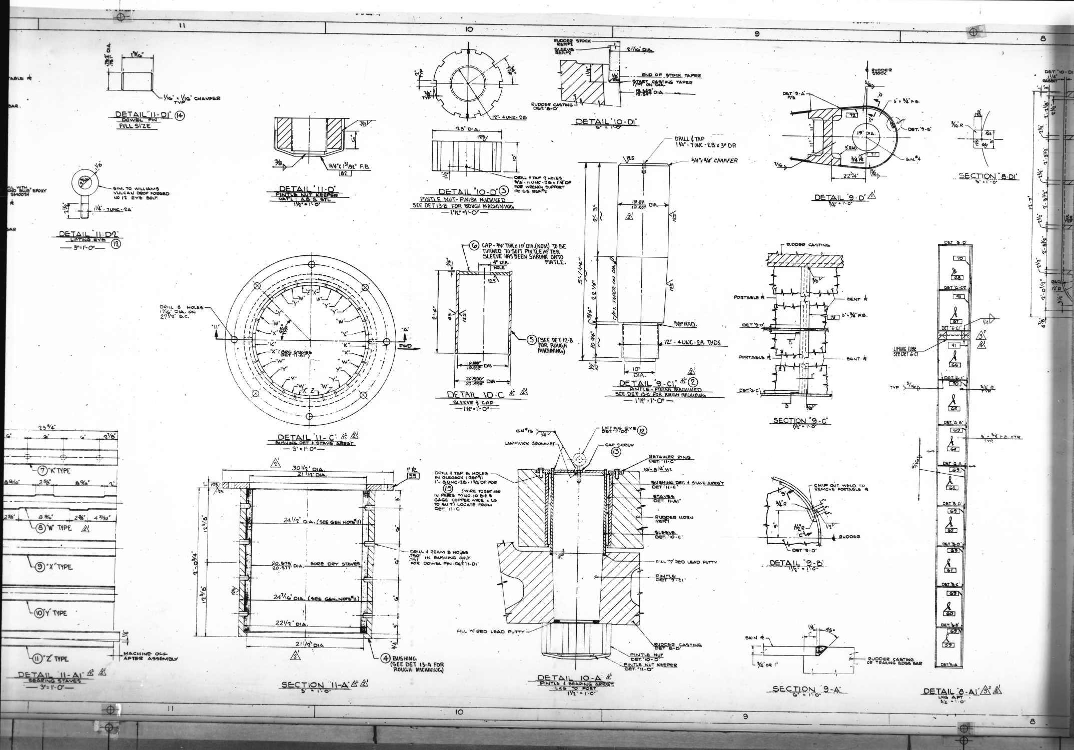
LIST OF M[illegible]

MOG NO.	ITEM NO.	QTY	DESCRIPTION
H-5	1	1	RUDDER CASTING
H-7	2	1	PINTLE
H-9	3	1	PINTLE NUT
H-14	4	1	PINTLE BUSHING
H-13-1	5	1	SLEEVE
H-13-2	6	1	CAP
H-10-1	7	2	STAVE TYPE "K"
H-10-2	8	8	"W"
H-10-3	9	6	"X"
H-10-4	10	8	"Y"
H-10-5	11	2	"Z"
	12	1	LIFTING EYE
	13	1	CAP SCREW HEX HD 1 1/4 -7UNC -2A x 2 3/4" LG
	14	8	DOWEL PIN
	15	8	HEX HD BOLT 1"-8UNC - 2A x 2 1/2" LG
	16	7	1 1/2" COUNTERSUNK PIPE PLUG (VENT & DRA[illegible]
	17	4	LIFTING TUBE PLUG

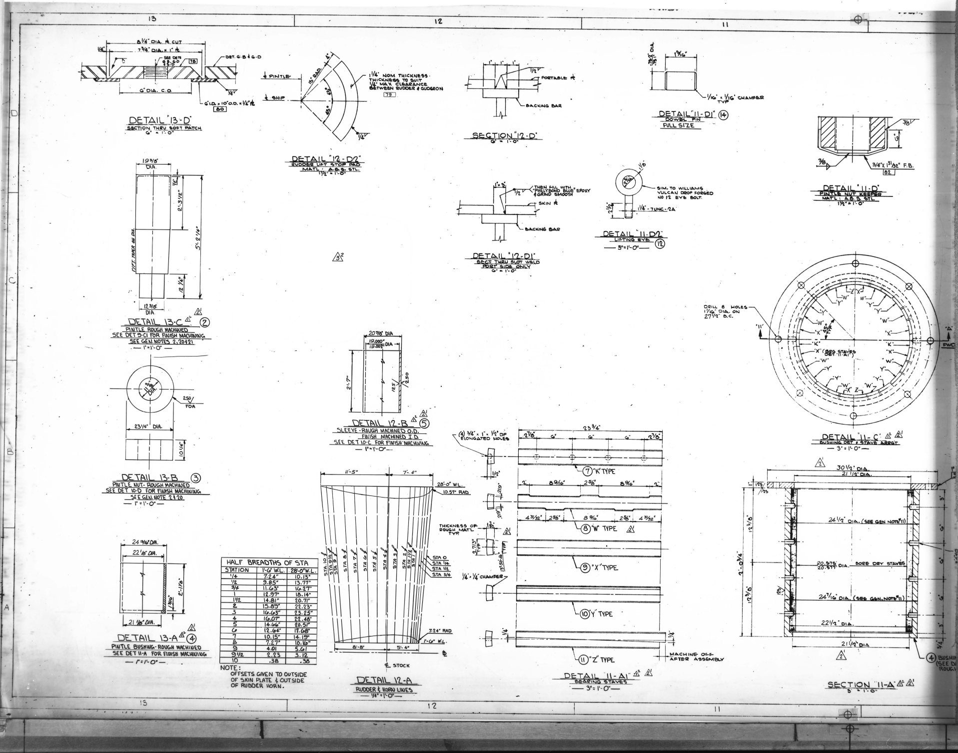
RED. 8X DATE 7-81
MA. NO. H-180 BLDR. NO. 22-01-02
FRAME NO. 2



RED. 8X DATE 7-81
MA. NO. H-180 BLDR. NO. 22-01-02
FRAME NO. 3



RED. 8X DATE 7-81
MA. NO. H-180 BLDR. NO. 22-01-02
FRAME NO. 4



HALF BREADTHS OF STA		
STATION	1'-6" W.L.	28'-0" W.L.
1/4	7.24"	10.13"
1/2	9.85"	13.77"
3/4	11.63"	16.27"
1	12.97"	18.14"
1 1/2	14.81"	20.71"
2	15.89"	22.23"
3	16.63"	23.25"
4	16.07"	22.48"
5	14.66"	20.51"
6	12.64"	17.68"
7	10.15"	14.19"
8	7.27"	10.16"
9	4.01	5.61
9 1/2	2.23	3.12
10	.38	.38

NOTE:
OFFSETS GIVEN TO OUTSIDE OF SKIN PLATE & OUTSIDE OF RUDDER HORN.

RED. 8X DATE 7-81
MA. NO. H-180 BLDR. NO. 22-01-02
FRAME NO. 5

RED. 8X DATE 7-81 MA. NO. H-181 BLDR. NO. 22-01-03 FRAME NO. 1

LIST OF MATERIAL - QUANTITY FOR ONE SHIP

REV	MOG ITEM	PC NO.	NAME OR DESCRIPTION	QTY	MATERIAL	SPEC. ORDERING DATA	REMARKS	ZONE
	H-53	1	RUDDER STOCK	1	FGD STL	ABS GR 2	DET 5-A & 19-A & GEN NOTE 1	5-A 19-A
	H-8	2	RUDDER STOCK NUT	1	↓	↓	DETS 12-A & 14-D & GEN NOTE 1 IDENTICAL TO PC 3 ON REF 2	12-A 14-D
		3	RUDDER STOCK NUT LOCKING PL	1	A.B.S. STL.			12-A1
3		4	LIFTING LUG	1	MILD STL	ABS		4-D
	H-54	5	RUDDER KEY	2	STEEL PLT. A.B.S. GR.'C'			4-B
3		6	BOLT-HVY HEX HD. - 1 1/8" 7UNC-2A	6	STL	ASTM A-307	LG = 4"	18-C
		7	1" DIA. HEX. SOCKET HD. CAP SCREW	4	STN. STL. AISI TYPE 304		1"-8UNC-2A LG = 3 1/4"	4-B
		8	NOT USED					
	H-16-1	9	BEARING RING (HALF)	2	TIN BRONZE	ASTM B 584-73 ALLOY 903	CASTING	7-D
	H-6	10	RUDDER CARRIER (HALF)	2	CAST STL	ABS HULL GR	CASTING PATTERN SIM TO ASI. JOB C7-1700 DWG # 22-1-3 GEN NOTE 2.	6-A
	H-18	11	RUDDER CARRIER BEARING (HALF)	2	TIN BRONZE	ASTM B 584-73 ALLOY 922	CENTRIFUGALLY CAST DET 7-B & 13-B1 GN 10	7-B 13-B1
	H-17-1	12	UPPER GLAND (HALF)	2	TIN BRONZE	↓	CASTING	8-B
		13	GREASE SEAL RETAINER (HALF)	2	A.B.S. STL.			8-C
		14	GREASE SEAL (21 1/4" I.D.)	1	SYNTHETIC RUBBER		GARLOCK SPLIT KLOZURES. SIM. TO PART NO. 23×G535 BULL #AD-225-2	8-D
3		15	~~LIFTING EYE~~	~~1~~	~~CAST STL.~~	~~ASTM A 148-50T CLASS 80-40~~		13-C
		16	HEX. HD. FITTED BOLT	10	STL.		4 1/4" LG., 1 17/32" SHANK, 1 1/2"-6UNC2A, 2" THD.	6-A
		17	HEX. NUT	22			STD., 1 1/2"-6UNC-2B	6-A 6-C
		18	HEX. HD. FITTED BOLT	12			6" LG, 1 17/32" SHANK, 1 1/2"-6UNC2A, 2 3/8" THD.	6-C
		19	HEX. HD. MACHINE SCREW	12			1/2"-13UNC-2A, 1 1/2" LG.	8-D
		20	HEX. HD. MACHINE SCREW	12			1/2"-13UNC-2A, 1 1/4" LG	8-D
		21	STUD	12	↓		3/4" Φ × 4 1/2" THD. 3/4"-10 UNC × 1 1/4" LG ONE END, 3/4"-10UNC × 2 5/8" LG. OTHER END	8-D1
		22	HEX. NUT	24	"K" MONEL		3/4"-10 UNC-2B	8-D1 10-D
		23	HEX. JAM NUT	24	↓		3/4"-10UNC-2B	8-D1 10-D
		24	ALEMITE GREASE FITTING	5	MONEL		ALEMITE NO. 1962 B	6-C
	H-15	25	LOWER BEARING BUSHING	1	TIN BRONZE	ASTM B 584-73 ALLOY 903	CENTRIFUGALLY CAST DET 9-C & 12-B GN 10	9-C 12-B
	H-17-2	26	LOWER GLAND	1	TIN BRONZE	ASTM B 584-73 ALLOY 922	CASTING	11-A1
	H-12	27	SLEEVE	1	TIN BRONZE	ASTM B 584-73 ALLOY 903	CENTRIFUGALLY CAST DET 10-C & 13-C1 GN 10	10-C 13-C1
	H-11-1	28	"X" STAVE	6	MICARTA			10-A
	H-11-2	29	"K" STAVE	2				10-A
	H-11-3	30	"W" STAVE	8				10-A
	H-11-4	31	"Z" STAVE	2				10-A
	H-11-5	32	"Y" STAVE	8	↓			10-A
		33	OIL RING (HALF)	2	TIN BRONZE	ASTM B 584-73 ALLOY 903		11-C
		34	PACKING	25 FT	FLAX		1" SQ. BRAIDED SEA-RO-CO #850 (CUT TO SUIT DETS 8-D1 & 10-D)	8-D1 10-D
		35	PACKING	2	MOULDED DUCK		23" O.D. × 21" I.D. × 2" THK. SEA-RO-CO 155	10-D
		36	DOWEL PIN	12	STN STL. AISI TYPE 304			10-D1
		37	KEY	2	BRASS			9-A
		38	FLAT HD. CAP SCREW W/ HEX. SOCKET RECESS	4	↓		3/8"-16 UNC-2A × 1" LG.	9-C
		39	HEX. HD. TAP BOLT	12	"K" MONEL		1"-8 UNC-2A × 3 1/2" LG	10-A
		40	ROUND WIRE	TO SUIT	COPPER		NO. 10 B & S GAGE	10-D 10-C1
		41	STUD	12	"K" MONEL		3/4" Φ × 5 1/2" LG - 3/4"-10UNC × 3 3/4" LG ONE END, 3/4"-10UNC2A × 1 1/4" LG OTHER END	10-D
		42	UPPER SEAL RING (HALF)	2	A.B.S. STL.			12-D
		43	LOWER SEAL RING	1	↓			11-D
		44	SEAL	1	NEOPRENE		21 15/16" O.D. × 21" I.D. × 15/32" Φ	10-C1
		45	HEX. HD. TAP BOLT	12	STN STL	AISI TYPE 304	3/4"-10UNC-2A × 2 1/2" LG	10-C1
		46	RELIEF FITTING	2	STL CRES	COMM'L	ALEMITE FITTING #47200, 1 PSI MIN., 5 PSI MAX.	6-D1
		47	GASKET	1	CANVAS		SOAKED IN RED LEAD	10-C1
		48	PINTLE & STOCK NUT WRENCH	1	A.B.S STL.			13-A
1		49	CHAIN - HODELL SAMSON PATTERN		STL	COMM'L	GALV. - SIZE #2 (#13 GA WIRE) WOODWARD WIGHT CAT.100 PG 135, 24" LG	13-A
		50	KEY		STL	AISI #1035	1 7/8" × 1 7/8" SQ BAR	13-B
		51	KEY STOP	↓	A.B.S. STL.			13-B
		52	STAPLE	2	STL.			13-A 13-B
		53	WRENCH SUPPORT	4	STN STL	AISI TYPE 304	3/4" Ø BAR × 2 1/2" LG.	12-C
		54	INSERT PLATE	1	A.B.S STL.			12-D1
	H-16-2	55	BEARING RING KEY	2	TIN BRONZE	ASTM B-584-73 ALLOY 903	CASTING	6-D
		56	LUBE OIL FEED LINE	ABT. 20 FT.	STL.(GALV)		3/4" Ø SEAMLESS PIPE X STG.	14-A 15-A 16-A
		57	MAIN LUBE OIL SUPPLY LINE	ABT. 35 FT.			1" Ø SEAMLESS PIPE X STG.	14-A 16-A 16-C
2		58	LUBE OIL FEED LINE	ABT. 6 FT.			1/2" Ø SEAMLESS PIPE X STG.	14-A 16-A 16-C
		59	VENT LINE	ABT. 55 FT.			↓	↓
1		60	VENT LINE	ABT. 10 FT.	↓		1 1/2" Ø SEAMLESS PIPE X STG.	14-A 15-C 16-C
1, 2		61	1/2" 90° WELDED ELBOW	5	FGD. STL. (GALV)		Nº 1380, 3000# PG. 294 CRANE CO. CAT. Nº 60	14-A 15-A 16-A
1		62	3/4" 90° ELBOW	1				
		63	1 1/2" 90° ELBOW	1				
1		64	1" 90° ELBOW	2			↓	
1		65	1" TEE	1			3000# PG. 141 VOGT CO. CAT. Nº F11	↓
1		66	3/4" WELDED COUPLING	3			Nº 1386, 3000# PG. 294 CRANE CO. CAT. Nº 60	16-A 16-B 16-C
2		67	1/2" COUPLING	4			↓	
1		68	1" SCREWED COUPLING	1			Nº 386 3000# PG. 258 CRANE CO. CAT. Nº 53	
1, 2		69	1 1/2" WELDED COUPLING	4	↓		Nº 1386 3000# PG. 294 CRANE CO. CAT. Nº 60	↓

2

GENERAL NOTES

1. Rudder stock, Det. 5-A, and stock nut, Det. 12-A, are to conform to and meet all the requirements of the American Bureau of Shipping Rules For Building And Classing Steel Vessels, 1977, Sect. 43, Grade 2 Forgings.
2. Rudder carrier, Det. 6-A, is to conform to and meet all the requirements of the American Bureau of Shipping Rules For Building And Classing Steel Vessels, 1977, Section 43, Hull Steel Castings. Quality and composition to be in substantial agreement with ASTM A27 (Grade 60-30).
3. Rudder stock and stock nut forgings shall be stress relieved before rough machining.
4. The rudder stock shall be rough turned to the dimensions shown in Det. 19-A to 500 RMS with a tolerance of "0" under and 1/8" over the diameters shown. Dimensions are to the underside of the tool cut.
5. All welding to be in accordance with ABS Rules and Reference 6.
6. Wedge staves ("Z") should be installed with a light drive fit. The 2 wedge staves should be driven simultaneously.
7. Soft wood filler strips may be driven into spring stave ("W") openings to steady the staves and to prevent undue bowing. Filler strips must be removed after completion of the boring operation.
8. Bearing staves shall be fitted with laminations perpendicular to the rudder stock.
9. Check bore of rudder horn (Ref. 1) before turning O.D. of lower bearing bushing. Bushing to be finish turned to provide interference fit of .002" to .004" on dia.
10. Non-ferrous castings shall conform to and meet all the requirements of the American Bureau Of Shipping Rules For Building And Classing Steel Vessels, 1977, including hydrostatic testing at 15 P.S.I.
11. The rudder trunk is to be filled with approximately 239 gals. of EXXON'S SPARTAN EP150 TO LUBRICATE THE LOWER RUDDER STOCK BEARING.
12. Piping is to be installed in accordance with the rules and regulations of the ABS and USCG.
13. Piping shall be properly supported to prevent vibration and to allow for expansion.
14. ALL LABEL PLATES TO BE ADHESIVE-BACKED, ANODIZED ALUMINUM METAL-PHOTO PROCESS.

REFERENCES

REV	NO	TITLE	DRAWING NO
	9	VANE FOR ROTARY VANE STEERING GEAR	LATER
	8	NOT USED	
	7	EQUIPMENT LUBRICATION DATA	45-04-07
	6	JOINT WELDING DETAILS	29-06-01
	5	AFT PEAK FRAMING, SHEETS 3 & 4.	11-03-02
	4	STEERING GEAR FOUNDATIONS ARRGT & DETAILS	22-01-04
	3	STRESS CALCULATIONS FOR RUDDER & RUDDER HORN.	22-01-01
	2	RUDDER	22-01-02
	1	STERN FRAME, RUDDER HORN & SHAFT STRUT CASTINGS.	11-08-01

REVISIONS

REV	ZONE	DESCRIPTION
1	1	1. DELETED RESERVATION #1
	1	2. G.N. 11 - CHG FROM "CODE #2332 TEXACO MEROPA LUBRICANT Nº 2 OR EQUAL."
	2	3. L/M - ITEMS 60,61,62,64,66,68,69,72,80,85 & 86, CHG. QUANTITIES.
	2	4. CHG ABS APPROVED MAX. SPEED FROM 22.5 KNOTS.
	3	5. L/M - ITEMS 65,80,81 & 82, CHG SIZE.
	3	6. L/M - DELETE ITEMS 74,75,76 & 77 & ADDED ITEMS 70,73,83 & 84.
	3	7. L/M - ITEM 82, CHG MATERIAL
	6	8. SECT 6-C - ADDED SPOONING DET 7-B1 AT TOP OF GREASE SUPPLY HOLES.
	14,15,16 17	9. DET 14-A; 16-C, 17-C, SECT. 15-A, 15-C & 16-A - CHG LUB PIPING, VENT & SOUNDING PIPE ARRANGEMENT.
	14	10. ADDED SECT 14-D1, DET 17-C & GEN NOTE 14.
	17	11. DELETED DET 17-B
	7	12. SECT 7-C - ADDED 1/16" × 1/16" CHAMFER TO ANNULAR GREASE GROOVE.
	14	13. DET 14-D - REVISED ROUGH MACH. I.D. WAS 11 1/2" DIA.
	2	14. L/M ITEM 49 - CHANGED CHAIN SIZE TO SUIT AVAILABILITY OF MATERIAL.
		REV 1 ITEM 4 IN ACCORDANCE WITH ABS LTR DATED FEB 14.1978
		REV 1 ITEM 2, 8 & 12 IN ACCORDANCE WITH FRIEDE & GOLDMAN LETTER DATED FEB 15.1978.
2	18	1. DET 18-A & SECT 18-C - RELOCATED (18) 1 1/2" Φ TAPPED HOLES & 3 KEY SEATS FOR VANES TO SUIT DEVELOPMENT.
	3	2. REVISED NOTE IN ZONE 3. WAS "APPROVED BY ABS - - - - - - 20.5 KNOTS" NOW "SUSTAINED SEA SPEED - - - - 20.5 KNOTS".
	3	3. LIST OF MATERIAL ITEM 82 - CHANGED MATERIAL WAS "BRASS".
		REV 2 ITEM 2 & 3 IN ACCORDANCE WITH FRIEDE & GOLDMAN LETTER DTD 6/12/78 SER. NO. L-772/344
	16	4. SECT 16-A - ADDED NOTE TO SOUNDING TUBE PC 80
	16	5. DET 16-C - HEIGHT OF SOUNDING TUBE INCREASED TO 5 1/4" ABV FLAT
	2	6. L.M. PC NO 69 - REVISED QTY TO READ 4
	1	7. G.N 11 - REVISED TO READ 239 GALS.
	VAR	8. DET 14-A & SECTS 15-A, 15-C & 16-A — REVISED GLAND LUBE OIL SUPPLY LINE, ITEM 58. WAS FROM GLAND TO 50' FLAT. REVISED DET 16-C & 17-C & DELETE DET 16-A1 TO SUIT. IN L/M - ITEM 58 - QTY WAS "ABT 45 FT", ITEM 61 - QTY WAS 6, ITEM 67 - QTY WAS 5, DELETED ITEMS 71, 78 & 85 & ADDED ITEM 79. ALL TO SUIT DEVELOPMENT.
3	2	1. L/M - ADDED ITEMS 4 & 6. DELETED ITEM 15.
	3,4,5,13	2. DET. 3-A & 5-A - DELETED LIFTING EYE & 3" TAPED HOLE IN TOP OF STOCK. & ADDED DET 4-D.
	18	3. SECT 18-C - ADDED NOTE FOR DRILLING OF RUDDER STOCK HEAD.
4	16	1. DET. 16-C: REVISED & RELOCATED VENT. ADDED ITEM 71 TO L/M. DELETED ITEM 60. THIS INCORP REV NOTICE NO H-480. ODS

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0		SER# L-772/7 DTD 2/15/78	2/14/78			
1	5-29-78	SER# L-772/344 DTD 6/12/78	7/12/78			
2	7-14-78	SER# L-772/535 DTD 7/27/78				
3	12-1-78	F&G LETTER 12-20-78.				
4	5/29/80	F & G 7-2-80				
5						
6						
7						
8						
9						
10						

RESERVATIONS

NO	DESCRIPTION
1	~~LUBE OIL PIPING ARRGT, DET 14-A, SECT 15-C. DET 16-C PENDING DEV.~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY P.D. DATE 12-21-77
CHECKED BY CG DATE 1-10-78
APVD MHC 1-12-78
APVD J. J. Murphy PROJECT MANAGER 1/20/78
APVD VP/CHIEF ENGINEER

RUDDER SUPPORT SYSTEM

SIZE H — A S I DWG NO C7-1000 22-01-03 — REV 4
SCALE AS NOTED — **KEY PLAN**

A S I DWG NO C7-1000 22-01-03 REV 4

A S I DWG NO C7-1000 22-01-03 REV 3

DISTRIBUTION

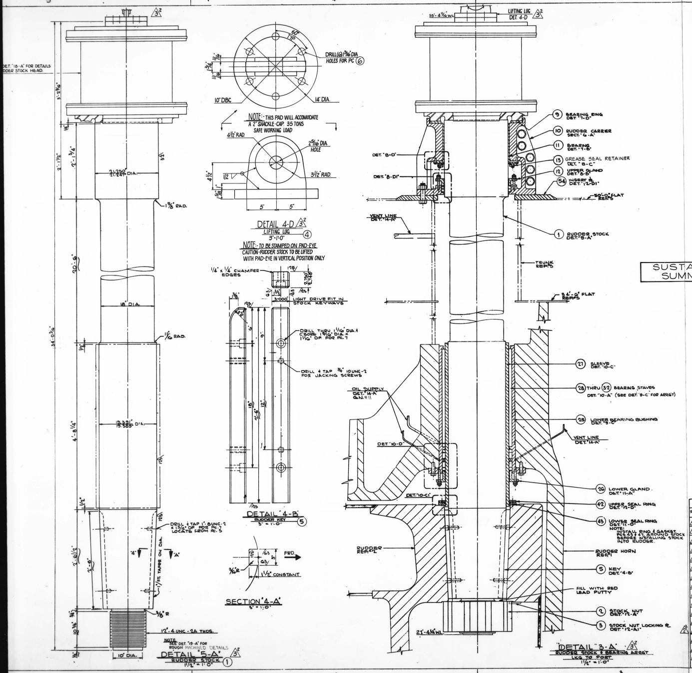
DEPARTMENT	PRELIM	0	1	2	3	4
PRODUCTION		3	18	18	19	30
PROD PLANNING						1
MOLD LOFT		5				
ESTIMATING						
PROJECT MANAGER		1	1	1	1	1
QUALITY CONTROL			3	3	3	3
COMPUTER APPL						
ELECTRICAL						
ENGR STANDARDS						
FILES & RECORDS		1	1	1	1	1
HULL		2	2	2	2	1
HULL COMPOSITE		1	1	1	1	1
DESIGN		2	2	1	1	1
OUTFITTING		1	1	1	1	1
STL TAKE OFF		1	1	1	1	1
H V A C						
MATERIAL REQN		4	1	1	1	1
MECHANICAL		1	1	1	1	1
MECH COMPOSITE						
RESEARCH & DEV						
BAYOU BLACK						
HARVEY						
INDUSTRIAL DIV						
SERVICE FOUNDRY						
JOINER CONTRACTOR						
ADMEASURER						
ABS (NY)		4	4			
ABS (NO)						
ABS (YARD)				1	1	1
USCG (NO)			2			
USCG (YARD)				1	1	1
USPHS						
OWNER (HOME)		1	1	1	1	1
OWNER (YARD)						
MARAD (WASH)		2	2	2	2	2
MARAD (YARD)		1	1	1	1	1
FRIEDE & GOLDMAN		3	3	3	3	3
F & G (Y)					1	1
B. SPRINGER						1
Sig Solares						1
TOTAL		33	44	41	42	35
DATE OF PRINT ISSUE		1/23/78	2/3?/78	7/19/78	12/4/78	6/5/80

C7-1000 SS-01-03

DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

SS-01-03 C7-1000

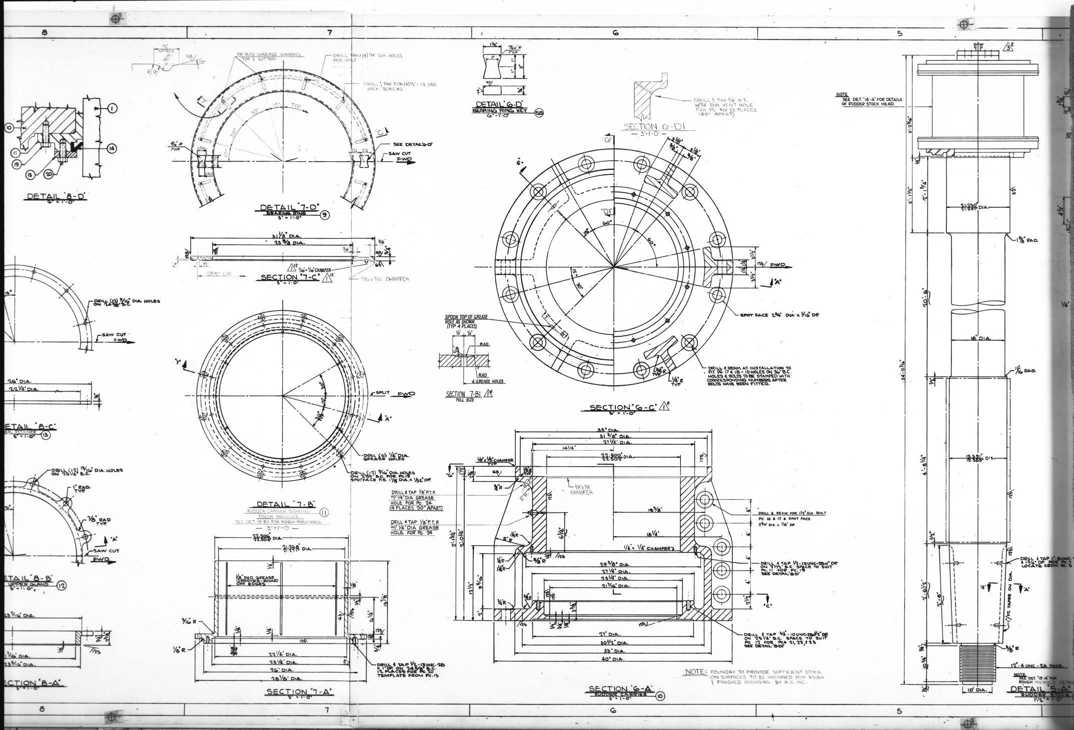


SUSTAINED SEA SPEED AT SUMMER LOAD LINE 20.5 KNOTS

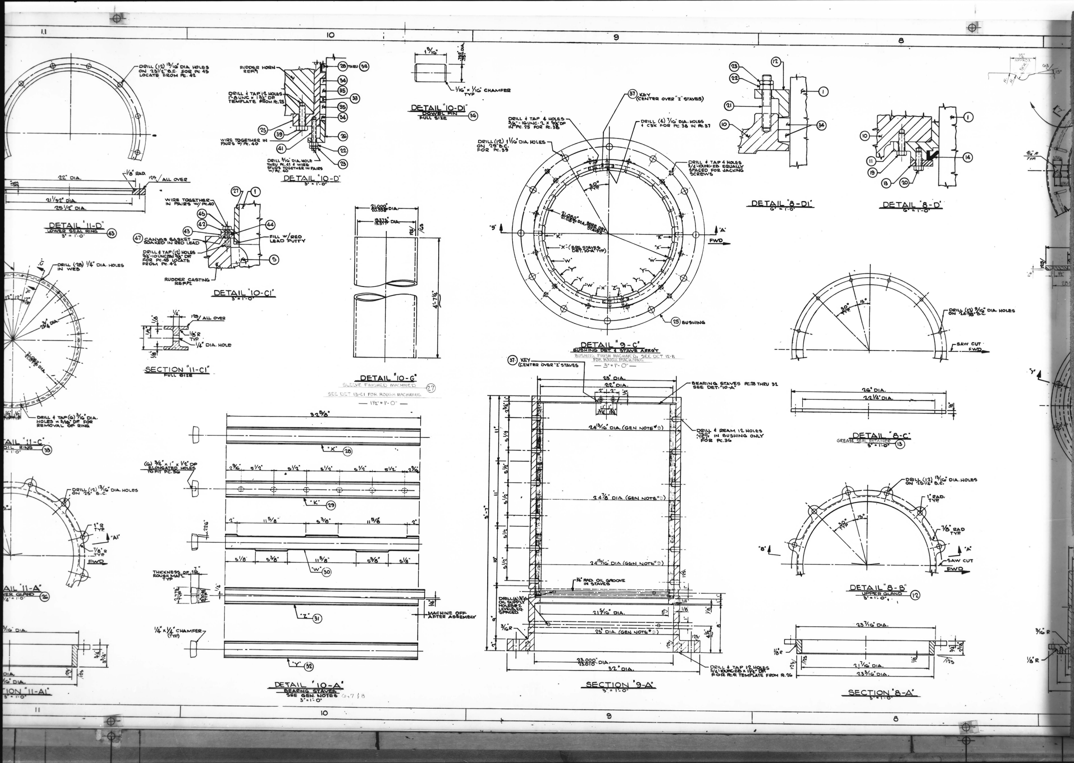
LIST OF MATERIAL - QUANTIT				
MOG ITEM	PC NO.	NAME OR DESCRIPTION	QTY	MATERIAL
H-53	1	RUDDER STOCK	1	FGD STL
H-8	2	RUDDER STOCK NUT	1	
	3	RUDDER STOCK NUT LOCKING ℞	1	A.B.S. STL.
	4	LIFTING LUG	1	MILD STL
H-54	5	RUDDER KEY	2	STEEL PLT. A.B.S. GR.'C'
	6	BOLT-HVY HEX HD. - 1 1/8" 7UNC-2A	6	STL
	7	1" DIA. HEX. SOCKET HD. CAP SCREW	4	STN. STL. AISI TYPE 304
	8	NOT USED		
H-16-1	9	BEARING RING (HALF)	2	TIN BRONZE
H-6	10	RUDDER CARRIER (HALF)	2	CAST STL
H-18	11	RUDDER CARRIER BEARING (HALF)	2	TIN BRONZE
H-17-1	12	UPPER GLAND (HALF)	2	TIN BRONZE
	13	GREASE SEAL RETAINER (HALF)	2	A.B.S. STL.
	14	GREASE SEAL (21 1/4" I.D.)	1	SYNTHETIC RUBBER
	15	~~LIFTING EYE~~	~~1~~	~~CAST STL~~
	16	HEX. HD. FITTED BOLT	10	STL.
	17	HEX. NUT	22	
	18	HEX. HD. FITTED BOLT	12	
	19	HEX. HD. MACHINE SCREW	12	
	20	HEX. HD. MACHINE SCREW	12	
	21	STUD	12	
	22	HEX. NUT	24	"K" MONEL
	23	HEX. JAM NUT	24	
	24	ALEMITE GREASE FITTING	5	MONEL
H-15	25	LOWER BEARING BUSHING	1	TIN BRONZE
H-17-2	26	LOWER GLAND	1	TIN BRONZE
H-12	27	SLEEVE	1	TIN BRONZE
H-11-1	28	"X" STAVE	6	MICARTA
H-11-2	29	"K" STAVE	2	
H-11-3	30	"W" STAVE	8	
H-11-4	31	"Z" STAVE	2	
H-11-5	32	"Y" STAVE	8	
	33	OIL RING (HALF)	2	TIN BRONZE
	34	PACKING	25FT	FLAX
	35	PACKING	2	MOULDED DUCK
	36	DOWEL PIN	12	STN STL. AISI TYPE 304
	37	KEY	2	BRASS
	38	FLAT HD. CAP SCREW W/HEX. SOCKET RECESS	4	
	39	HEX. HD. TAP BOLT	12	"K" MONEL
	40	ROUND WIRE	TO SUIT	COPPER
	41	STUD	12	"K" MONEL
	42	UPPER SEAL RING. (HALF)	2	A.B.S. STL.
	43	LOWER SEAL RING	1	
	44	SEAL	1	NEOPRENE
	45	HEX. HD. TAP BOLT	12	STN STL
	46	RELIEF FITTING	2	STL CRES
	47	GASKET	1	CANVAS
	48	PINTLE & STOCK NUT WRENCH	1	A.B.S STL.
	49	CHAIN - HODELL SAMSON PATTERN		STL
	50	KEY		STL
	51	KEY STOP		A.B.S. STL.
	52	STAPLE	2	STL.
	53	WRENCH SUPPORT	4	STN STL
	54	INSERT PLATE	1	A.B.S. STL.
H-16-2	55	BEARING RING KEY	2	TIN BRONZE
	56	LUBE OIL FEED LINE	ABT. 20 FT.	STL (GALV)
	57	MAIN LUBE OIL SUPPLY LINE	ABT. 35 FT.	
	58	LUBE OIL FEED LINE	ABT. 6 FT.	
	59	VENT LINE	ABT. 55 FT.	
	60	VENT LINE	ABT. 10 FT.	
	61	1/2" 90° WELDED ELBOW	5	FGD. STL. (GALV)
	62	3/4" 90° ELBOW	1	
	63	1 1/2" 90° ELBOW	1	
	64	1" 90° ELBOW	2	
	65	1" TEE	1	
	66	3/4" WELDED COUPLING	3	
	67	1/2" COUPLING	4	
	68	1" SCREWED COUPLING	1	
	69	1 1/2" WELDED COUPLING	4	

LIST OF MATERIAL - QTY FOR ONE SHIP					
PC NO.	NAME OR DISCRIPTION	QTY	MAT	REMARKS	ZONE
70	1"x3/4" WELDED REDUCER INSERT	2	FGD STL GALV	NO1390 PG 278 CRANE CAT 53	16-A
71	LONG RADIUS RETURN BEND	1	FGD STL GALV	1 1/2" DIA. SCH-80 PIPE	16-C
72	1" COUNTERSUNK PLUG	1	BRASS	PG. 185, CRANE CAT Nº 53	16-C
73	1" WELDED COUPLING	1	FGD STL GALV	NO. 1386 PG 277 CRANE CAT 53	16-A
~~74~~	~~1/4" HEX. HEAD BOLT~~	~~24~~	~~STL GALV~~	~~1/4", 20 UNC, x 1" LG.~~	~~17-B~~
~~75~~	~~1/4" HEX. NUT~~	~~24~~		~~1/4", 20 UNC~~	
~~76~~	~~PIPE HANGER FOR 1"φ~~	~~6~~	~~STL~~	~~1" x 1/4" FLAT BAR~~	
~~77~~	~~PIPE HANGER FOR 1/2"φ~~	~~6~~			
~~78~~	~~1/2" SCREWED COUPLING~~	~~1~~	~~FGD STL GALV~~	~~Nº 386 3000# PG 258 CRANE CAT. NO. 53.~~	~~16-C~~
79	3/4"x3/4"x1/2" WELDED TEE	1		3000# VOGT CO. CAT. # F-11 PG. 141	14-A 16-A
80	SOUNDING LINE	ABT 32FT	STL GALV	1 1/2" φ SMLS. PIPE, X STG.	14-A
81	1 1/2" SCREWED TEE	1	FGD STL GALV	NO. 381, 3000# PG 286 CRANE CAT. NO. 60	16-A
82	1 1/2" SQ. HEAD PLUG	1	MONEL	NO. 309, 3000# PG 286 CRANE CAT. NO. 60	16-A
83	1 1/2" COUNTERSUNK PLUG	1	BRASS	PG 185 CRANE CAT 53	16-C
84	1 1/2" SCREWED COUPLING	1	FGD STL GALV	NO. 386 3000# PG 258 CRANE CAT 53	16-C
~~85~~	~~1/2" PIPE~~	~~1~~	~~CRES~~	~~CL 304, SCHED 40~~	~~16-A~~
86	1" PIPE	1	CRES	CL 304, SCHED 40	16-B

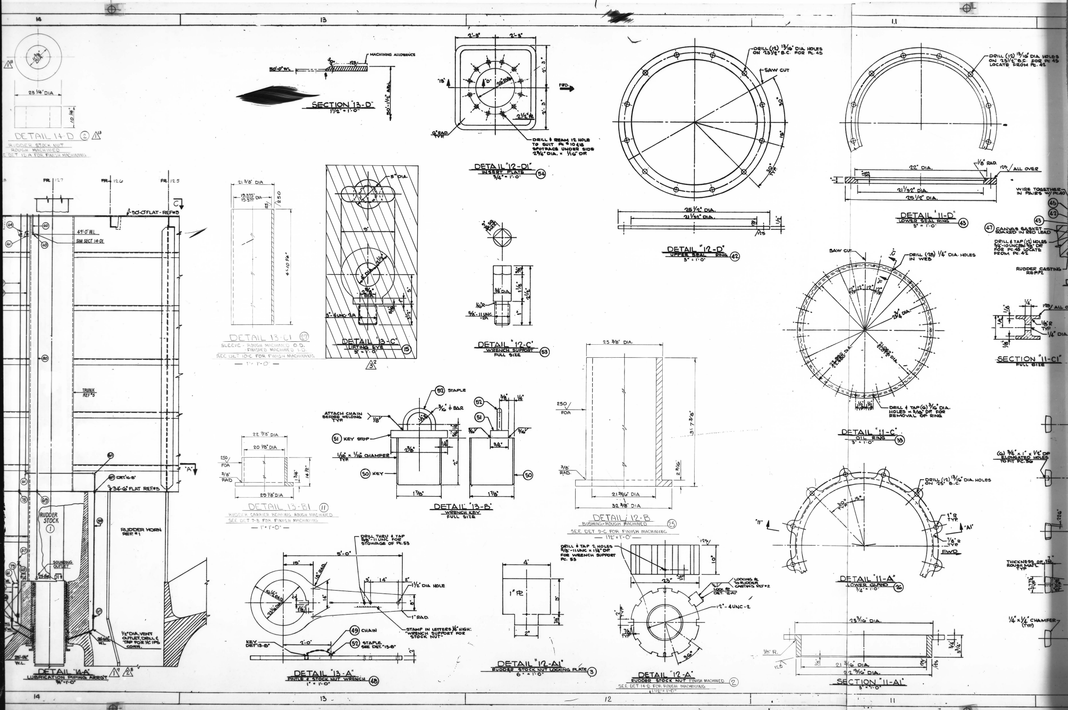
RED. 8X DATE 7-81
MA. NO. H-181 BLDR. NO. 22-01-03
FRAME NO. 2



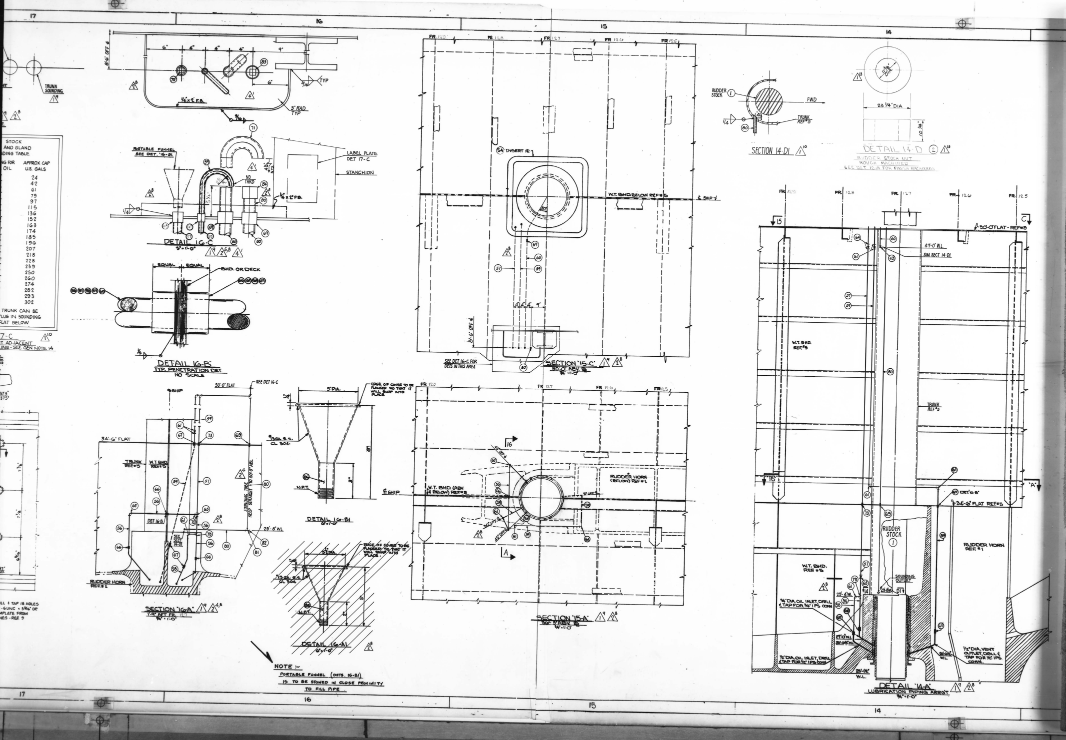
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MA. NO. H-181 BLDR. NO. 22-01-03
FRAME NO. 3



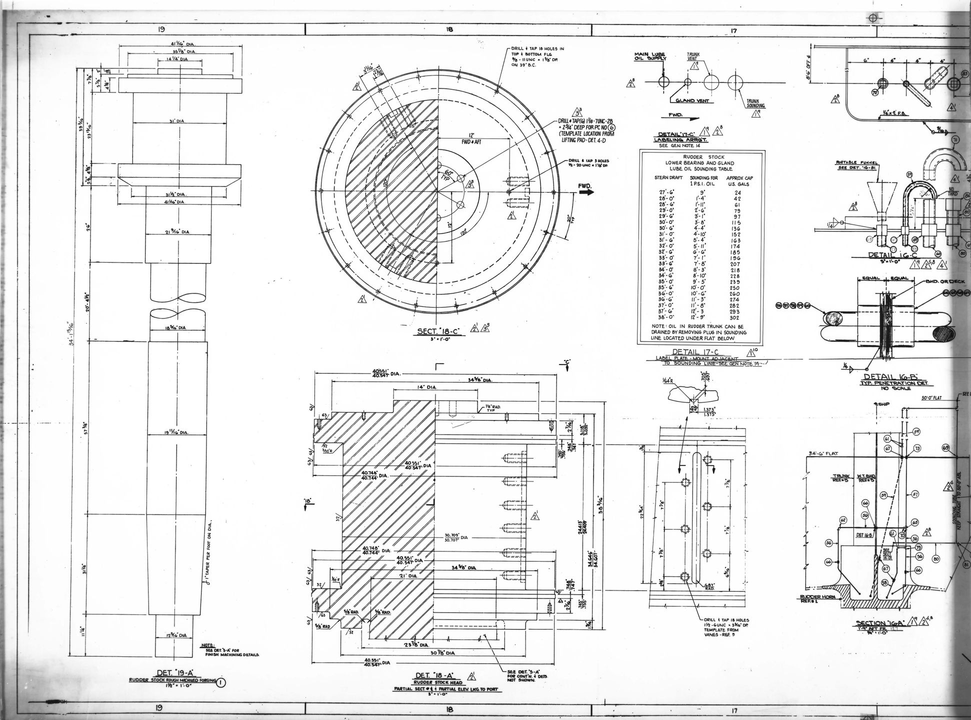
RED. 8X DATE 7-81
MA. NO. H-181 BLDR. NO. 22-01-03
FRAME NO. 4



RED. 8X DATE 7-81
MA. NO. H-181 BLDR. NO. 22-01-03
FRAME NO. 5



RED. 8X DATE 7-81
MA. NO. H-181 BLDR. NO. 22-01-03
FRAME NO. 6



RUDDER STOCK LOWER BEARING AND GLAND LUBE OIL SOUNDING TABLE

STERN DRAFT	SOUNDING FOR 1 P.S.I. OIL	APPROX CAP U.S. GALS
27'-6"	9"	24
28'-0"	1'-4"	42
28'-6"	1'-11"	61
29'-0"	2'-6"	79
29'-6"	3'-1"	97
30'-0"	3'-8"	115
30'-6"	4'-4"	136
31'-0"	4'-10"	152
31'-6"	5'-4"	163
32'-0"	5'-11"	174
32'-6"	6'-6"	185
33'-0"	7'-1"	196
33'-6"	7'-8"	207
34'-0"	8'-3"	218
34'-6"	8'-10"	228
35'-0"	9'-5"	239
35'-6"	10'-0"	250
36'-0"	10'-6"	260
36'-6"	11'-3"	274
37'-0"	11'-8"	282
37'-6"	12'-3	293
38'-0"	12'-9"	302

NOTE: OIL IN RUDDER TRUNK CAN BE DRAINED BY REMOVING PLUG IN SOUNDING LINE LOCATED UNDER FLAT BELOW

DETAIL 17-C
LABEL PLATE - MOUNT ADJACENT TO SOUNDING LINE - SEE GEN NOTE 14

RED. 8X DATE 7-81
MA. NO. H-181 BLDR. NO. 22-01-03
FRAME NO. 7

PRINCIPAL CHARACTERISTICS

LENGTH OVERALL (EXCLUDING CRANE OVERHANG)	845'- 4"
LENGTH OVERALL (INCLUDING CRANE OVERHANG)	893'- 4"
LENGTH BETWEEN PERPENDICULARS	797'- 4"
BREADTH (MOLDED)	100'- 0"
DEPTH (MOLDED) AT SIDE	60'- 0"
DEPTH (MOLDED) AT CENTERLINE	61'- 0"
S.H.P. (MAX. A.B.S.)	32,000
SPEED NORMAL AT 28'-0" W.L.	22 KNOTS
DESIGN DRAFT	28'- 0"
FULL LOAD DRAFT	38'- 1¼"
DISPLACEMENT AT 28'-0" W.L.	38,053.1
DISPLACEMENT 38'-0" W.L.	57,033.7
DEADWEIGHT AT 28'-0" W.L.	21,534.8
DEADWEIGHT AT 38'-0" W.L.	40,515.3

GENERAL NOTES

1. EQUIVALENTS USED:

1 TON	2240 LBS.
42 GALLONS	1 BARREL
37.23 CU. FT. FUEL OIL	1 TON
6.631 BARRELS FUEL OIL	1 TON
35.00 CU. FT. SALT WATER	1 TON
36.00 CU. FT. FRESH WATER	1 TON

2. VERTICAL AND LONGITUDINAL CENTERS OF GRAVITY ARE REFERRED TO BASELINE AND FORWARD PERPENDICULAR, RESPECTIVELY.
3. DEADWEIGHT SCALE IS BASED ON LIGHTSHIP DRAFT OF 14'-6¼" AND DISPLACEMENT OF 16,518.3 L. TONS.*
4. MIDSHIP IS LOCATED 0'-1" FWD. OF FRAME 72.

*LIGHTSHIP REFLECTS DATA OBTAINED FROM STABILITY TEST OF 5-23-80 REVISED TO SUIT REMOVAL OF CONTAINER CRANE AND REMOVAL OF CONTAINER GUIDES IN HOLDS 1A AND 1B THAT INTERFERE WITH LIGHTER STOWAGES.

NAME	BENJAMIN HARRISON	EDWARD RUTLEDGE
YARD HULL NO.	2307	2308
MARAD HULL NO.	336	337
OFFICIAL NO.	624457	RESV. #2
CALL LETTERS	WFLG	WFLH

TONNAGES:		
UNITED STATES	GROSS	29965.05
	NET	22468.00

GENERAL NOTES

REFERENCES

REV	NO	TITLE	DRAWING NO
	3	HULL MARKINGS	28-04-01
	2	GRAIN LOADING BOOKLET	29-01-10
	1	STABILITY BOOKLET	29-01-09

REVISIONS

REV	ZONE	DESCRIPTION
1		THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 29-01-01 REV. 5 PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS: ADDED MAXIMUM PERMISSIBLE DECK LOADS PER F & G APPROVAL LTR L-772/2943 DATED JUNE 3, 1980. BY: A.J.R. 6-13-80 APVD: 6-16-80
2		1. REMOVED RESERVATIONS NO. 1 & 2. 2. REVISED TANK SUMMARY TABLE TO SUIT TANK CAPACITY CURVES. 3. ADDED DEADWEIGHT VALUES TO HYDROSTATIC SCALE. 4. REMOVED CONTAINER CRANE AND CONTAINER DATA TO SUIT REMOVAL. BY: G. BURAS 8-27-80 APVD. 9-10-80

RESERVATIONS

NO	DESCRIPTION
~~2~~	~~PENDING TONNAGE ASSIGNMENT~~
~~1~~	[illegible]

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY: G. BURAS DATE:
CHECKED BY: J FISHER DATE: 4-29-80
APVD: [signature]
APVD PROJECT MANAGER: [signature]
APVD VP/CHIEF ENGINEER: NOT REQUIRED

CAPACITY PLAN

SIZE: H — A S I DWG NO: C7-1000 29-01-01 — REV: 2
SCALE: KEY PLAN

A S I DWG NO 29-01-01 REV 2

DISTRIBUTION

DEPARTMENT	C	1	2
PRODUCTION	4	4	5
PROD PLANNING	1	1	1
MOLD LOFT			
ESTIMATING			
PROJECT MANAGER	1	1	1
QUALITY CONTROL	1	1	1
COMPUTER APPL			
ELECTRICAL			
ENGR STANDARDS			
FILES & RECORDS	1	1	1
HULL			
HULL COMPOSITE	1	1	1
DESIGN	1	1	1
OUTFITTING			
STL TAKE OFF			
H V A C			
MATERIAL REQN	1	1	1
MECHANICAL			
MECH COMPOSITE			
RESEARCH & DEV			
BAYOU BLACK			
HARVEY			
INDUSTRIAL DIV			
SERVICE FOUNDRY			
JOINER CONTRACTOR			
ADMEASURER	1		
ABS (NY)			
ABS (NO)			
ABS (YARD)			
USCG (NO)		2	2
USCG (YARD)			
USPHS			
OWNER (HOME)	1	1	4
OWNER (YARD)			
MARAD (WASH)	2	2	2
MARAD (YARD)	1	1	1
J. BRISNER	2	2	2
F & G (N)	3	3	3
F & G (Y)	1	1	1
Sig Solness	1	1	1
TOTAL	23	24	28
DATE OF PRINT ISSUE	5/1/80	6/16/80	9/11/80

DISTRIBUTION

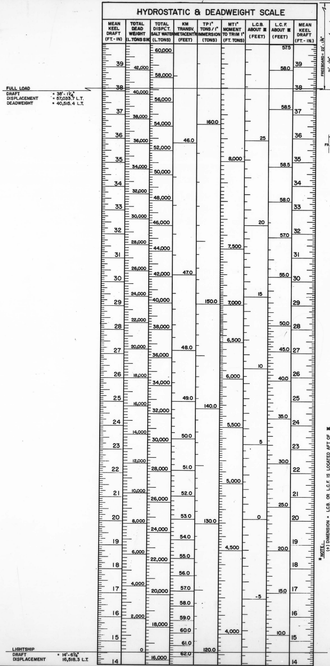
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

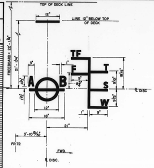
C7-1000 29-01-01

…AP.	BALE CAP.
…0	39,200
…0	39,200
…0	58,800
…0	39,200
…0	78,400
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…0	58,800
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…0	39,200
…0	39,200
…0	39,200
…0	39,200
…0	39,200
…0	39,200
…00	1,744,400

…,100 CU. FT.

… BALE





PRINCIPAL CHARACTERISTIC…

LENGTH OVERALL (EXCLUDING CRANE OVERHANG) ____
LENGTH OVERALL (INCLUDING CRANE OVERHANG) ____
LENGTH BETWEEN PERPENDICULARS ____
BREADTH (MOLDED) ____
DEPTH (MOLDED) AT SIDE ____
DEPTH (MOLDED) AT CENTERLINE ____
S.H.P. (MAX. A.B.S.) ____
SPEED NORMAL AT 28'-0" W.L. ____
DESIGN DRAFT ____
FULL LOAD DRAFT ____
DISPLACEMENT AT 28'-0" W.L. ____
DISPLACEMENT 38'-0" W.L. ____
DEADWEIGHT AT 28'-0" W.L. ____
DEADWEIGHT AT 38'-0" W.L. ____

GENERAL NOTES

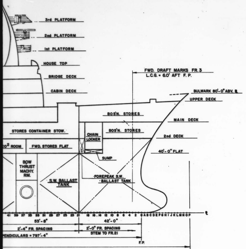
1. EQUIVALENTS USED:
   - 1 TON ____
   - 42 GALLONS ____
   - 37.23 CU. FT. FUEL OIL ____
   - 6.631 BARRELS FUEL OIL ____
   - 35.00 CU. FT. SALT WATER ____
   - 36.00 CU. FT. FRESH WATER ____
2. VERTICAL AND LONGITUDINAL CENTERS OF GRAVITY A… BASELINE AND FORWARD PERPENDICULAR, RESPECTIV…
3. DEADWEIGHT SCALE IS BASED ON LIGHTSHIP DRAFT O… AND DISPLACEMENT OF 16,518.3 L. TONS.*
4. MIDSHIP IS LOCATED 0'-1" FWD. OF FRAME 72.

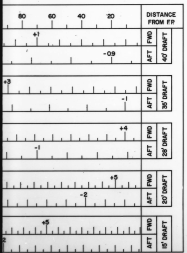
*LIGHTSHIP REFLECTS DATA OBTAINED FROM STABILITY T… 5-23-80 REVISED TO SUIT REMOVAL OF CONTAINER CR… REMOVAL OF CONTAINER GUIDES IN HOLDS IA AND IB … INTERFERE WITH LIGHTER STOWAGES.

NAME	BENJAMIN HARRISON	EDWARD RUTLEDGE
YARD HULL NO.	2307	2308
MARAD HULL NO.	336	337
OFFICIAL NO.	624457	RESV. #2
CALL LETTERS	WFLG	WFLH

TONNAGES:		
UNITED STATES	GROSS	29965.05
	NET	22468.00

NOTE: ENCIRCLED FIGURES WITHIN THE PROFILE DENOTE MAX. PERMISSIBLE DECK LOADING LB./FT.^{2}





FIVE DRAFTS TO FACILITATE INTERPOLATION, BUT IN PRACTICE
REFER TO THE TABLE NEAREST SHIP'S DRAFT.
S FOR LOADING AND CHANGE THE + AND – SIGNS.

PASSIVE STABILIZER TANKS

TANK	FRAME	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	GALLONS 100% FULL	S.W. L.TONS 100% FULL	S.W. L.TONS 98% FULL
FWD. FLUME TANK	52-55	31.09	173.31	181,120.00	691.73	677.90
AFT FLUME TANK	55-58	14.76	209.97	258,543.56	987.43	967.68
TOTAL		21.49	194.87	439,663.56	1679.16	1645.58

SANITARY WASTE TANKS

TANK	FRAME	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	GALLONS 100% FULL	CU. FT. 100% FULL	S.W.L.TONS 100% FULL
500 GAL. SEWAGE TANK	89-90	15.39	591.16	504.16	67.39	1.93
BILGE SLOP TANK	86-88	4.11	572.29	36,011.57	4813.74	137.54

LUBE OIL TANKS

TANK	FRAME	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	GALLONS 100% FULL	BARRELS 98% FULL	L.O.L.TONS 98% FULL
L.O. STORAGE TANK (P)	89-90	51.88	590.66	8463.70	197.49	28.43
L.O. STOR. DIESEL GEN. TANK	89-90	51.87	590.66	1255.45	29.29	4.22
L.O. GRAVITY TANK	89-90	52.62	590.66	4406.50	102.82	14.80
L.O. SETTLING TANK	89-90	52.28	590.47	6015.77	140.37	20.21
MAIN L.O. SUMP	93-94	10.81	618.53	5658.18	132.02	19.01
TOTAL		43.09	596.73	25,799.60	601.99	86.67

FRESH WATER TANKS

TANK	FRAME	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	GALLONS 100% FULL	F.W. L.TONS 100% FULL	F.W. L.TONS 98% FULL
DISTILLED WATER TANK (P)	90-95	47.58	613.13	65,428.82	242.94	238.08
DISTILLED WATER TANK (S)	90-95	47.58	613.13	65,428.82	242.94	238.08
POTABLE WATER TANK (P)	90-95	27.03	610.91	40,785.01	151.44	148.41
POTABLE WATER TANK (S)	90-95	27.03	610.91	40,785.01	151.44	148.41
TOTAL		39.69	612.28	212,427.66	788.76	772.98

DIESEL OIL TANKS

TANK	FRAME	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	GALLONS 100% FULL	BARRELS 98% FULL	D.O. L.TONS 98% FULL
D.O. TANK (P)	85-87	15.82	564.83	17,585.98	410.34	56.13
D.O. TANK (S)	85-87	15.82	564.83	17,585.98	410.34	56.13
400 GAL. EMER. DIESEL GEN: DAY TK.	87-88	72.93	574.56	393.66	9.19	1.26
TOTAL		16.45	564.94	35,565.62	829.87	113.52

FUEL OIL TANKS

TANK	FRAME	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	GALLONS 100% FULL	BARRELS 98% FULL	F.O. L.TONS 98% FULL
F.O. STORAGE OVERFLOW TANK (P)	44-45	40.80	99.41	5,854.82	136.61	20.60
F.O. STORAGE OVERFLOW TANK (S)	44-45	40.80	99.41	5,854.82	136.61	20.60
F.O. STORAGE TANK (P)	44-52	20.79	127.80	282,545.34	6592.72	994.17
F.O. STORAGE TANK (S)	44-52	20.79	127.80	282,545.34	6592.72	994.17
NO. 3 WING F.O. OVERFLOW TK. (P)	73-73.3	55.06	414.67	5,403.72	126.09	19.01
NO. 3 WING F.O. OVERFLOW TK. (S)	73-73.3	55.06	414.67	5,403.72	126.09	19.01
NO. 3 WING F.O. TANK (P)	73-79	33.07	447.56	369,676.86	8625.79	1300.75
NO. 3 WING F.O. TANK (S)	73-79	33.07	447.56	369,676.86	8625.79	1300.75
NO. 6 WING F.O. OVERFLOW TK. (P)	95-95.3	55.06	634.67	5,403.72	126.09	19.01
NO. 6 WING F.O. OVERFLOW TK. (S)	95-95.3	55.06	634.67	5,403.72	126.09	19.01
NO. 6 WING F.O. TANK (P)	95-101	31.23	663.88	368,404.26	8596.10	1296.28
NO. 6 WING F.O. TANK (S)	95-101	30.47	663.78	385,188.72	8987.74	1355.33
TOTAL		29.22	437.94	2,091,361.90	48,798.44	7358.69

BALLAST TANKS

TANK	FRAME	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	GALLONS 100% FULL	S.W. L.TONS 98% FULL	S.W. L.TONS 100% FULL
FOREPEAK	-8 - 21	23.47	21.18	139,074.75	520.53	531.15
FWD. BALLAST TANK	21 - 44	22.22	70.79	227,659.13	852.09	869.48
NO. 1 S.W. BALLAST TANK	52 - 55	14.77	173.54	344,012.69	1287.57	1313.85
NO. 2 DBL. BOTTOM S.W. BALLAST (P)	61 - 70	3.55	321.63	181,235.75	678.34	692.18
NO. 2 DBL. BOTTOM S.W. BALLAST (S)	61 - 70	3.55	321.63	181,235.75	678.34	692.18
NO. 2 WING BALLAST TANK (P)	61 - 67	34.11	302.30	350,682.25	1312.54	1339.33
NO. 2 WING BALLAST TANK (S)	61 - 67	34.11	302.30	350,682.25	1312.54	1339.33
NO. 2A WING BALLAST TANK (P)	67 - 73	32.82	374.36	360,218.94	1348.24	1375.75
NO. 2A WING BALLAST TANK (S)	67 - 73	32.82	374.36	360,218.94	1348.24	1375.75
NO. 3 DBL. BOTTOM S.W. BALLAST (P)	70 - 76	3.57	411.00	129,786.56	485.77	495.68
NO. 3 DBL. BOTTOM S.W. BALLAST (S)	70 - 76	3.57	411.00	129,786.56	485.77	495.68
NO. 4 DBL. BOTTOM S.W. BALLAST (P)	76 - 85	3.57	499.74	177,218.13	663.29	676.83
NO. 4 DBL. BOTTOM S.W. BALLAST (S)	76 - 85	3.57	499.74	177,218.13	663.29	676.83
NO. 4 WING BALLAST TANK (P)	79 - 85	33.70	520.73	372,028.25	1392.43	1420.85
NO. 4 WING BALLAST TANK (S)	79 - 85	33.70	520.73	372,028.25	1392.43	1420.85
NO. 7 S.W. BALLAST TANK (P)	101-121	32.91	736.77	444,793.13	1683.49	1717.85
NO. 7 S.W. BALLAST TANK (S)	101-121	35.36	737.18	342,341.19	1281.32	1307.47
AFT S.W. BALLAST TANK (P)	121-132	39.99	793.32	201,087.75	752.63	767.99
AFT S.W. BALLAST TANK (S)	121-132	39.99	793.32	201,087.75	752.63	767.99
TOTAL		26.25	446.00	5,047,396.15	18,891.48	19,277.02

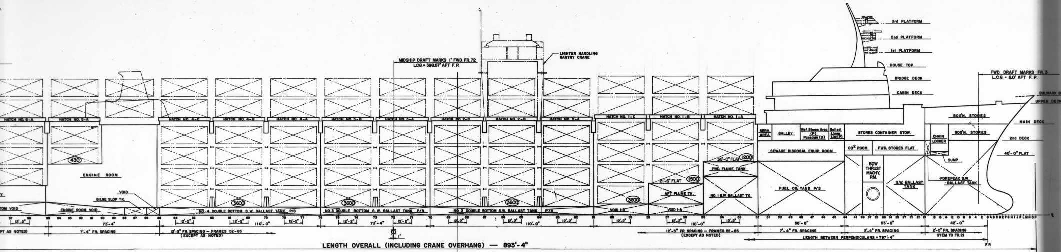
DRY CARGO CAPACITIES

HOLD	SPACE	FRAME	LIGHTERS NO.	LIGHTERS GRAIN CAP.	LIGHTERS BALE CAP.
1A	BELOW DECK	52 - 55	2	40,200	39,200
1A	ON HATCH COVER	52 - 55	2	40,200	39,200
1B	BELOW DECK	55 - 58	3	60,300	58,800
1B	ON HATCH COVER	55 - 58	2	40,200	39,200
1C	BELOW DECK	58 - 61	4	80,400	78,400
1C	ON HATCH COVER	58 - 61	2	40,200	39,200
2A	BELOW DECK	61 - 64	4	80,400	78,400
2A	ON HATCH COVER	61 - 64	2	40,200	39,200
2B	BELOW DECK	64 - 67	4	80,400	78,400
2B	ON HATCH COVER	64 - 67	2	40,200	39,200
2C	BELOW DECK	67 - 70	4	80,400	78,400
2C	ON HATCH COVER	67 - 70	2	40,200	39,200
3A	BELOW DECK	70 - 73	4	80,400	78,400
3A	ON HATCH COVER	70 - 73	2	40,200	39,200
3B	BELOW DECK	73 - 76	4	80,400	78,400
3B	ON HATCH COVER	73 - 76	2	40,200	39,200
4A	BELOW DECK	76 - 79	4	80,400	78,400
4A	ON HATCH COVER	76 - 79	2	40,200	39,200
4B	BELOW DECK	79 - 82	4	80,400	78,400
4B	ON HATCH COVER	79 - 82	2	40,200	39,200
4C	BELOW DECK	82 - 85	4	80,400	78,400
4C	ON HATCH COVER	82 - 85	2	40,200	39,200
5A	BELOW DECK	90 - 95	2	40,200	39,200
5A	ON HATCH COVER	90 - 95	2	40,200	39,200
6A	BELOW DECK	95 - 98	3	60,300	58,800
6A	ON HATCH COVER	95 - 98	2	40,200	39,200
6B	BELOW DECK	98 - 101	3	60,300	58,800
6B	ON HATCH COVER	98 - 101	2	40,200	39,200
7A	BELOW DECK	101 - 111	2	40,200	39,200
7A	ON HATCH COVER	101 - 111	2	40,200	39,200
7B	BELOW DECK	111 - 121	2	40,200	39,200
7B	ON HATCH COVER	111 - 121	2	40,200	39,200
ENG. RM.	ON HATCH COVER	85 - 90	2	40,200	39,200
STRG. GR.	ON HATCH COVER	121 - 132	2	40,200	39,200
	TOTALS		89	1,788,900	1,744,400

NOTE: THE ABOVE TABLE IS FOR SINGLE SKIN LIGHTERS HAVING A GRAIN CAPACITY OF 20,100 CU. FT. AND A BALE CAPACITY OF 19,600 CU. FT.

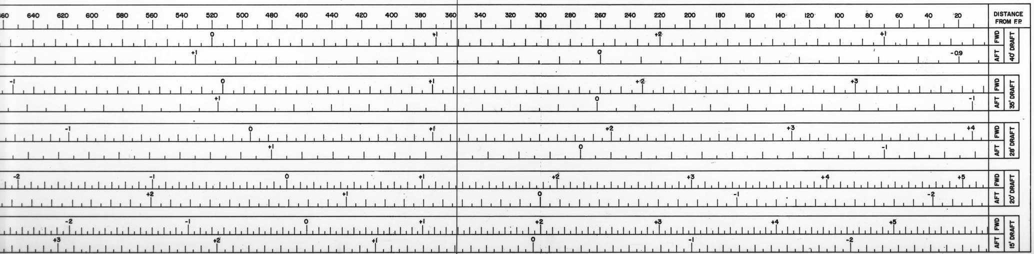
A TYPICAL DOUBLE SKIN LIGHTER HAS A GRAIN CAPACITY OF 19,800 CU. FT. AND A BALE CAPACITY OF 19,500 CU. FT.

NOTE: ENCIRCLED FIGURES WITHIN THE PRO[illegible] DENOTE MAX. PERMISSIBLE DECK LOA[illegible] LB./FT.^{2}



EFFECT ON DRAFTS FOR EACH 100 TONS LOADED AT ANY LONGITUDINAL LOCATION

CHANGE OF DRAFT GIVEN IN INCHES AND BETWEEN DRAFT MARKS

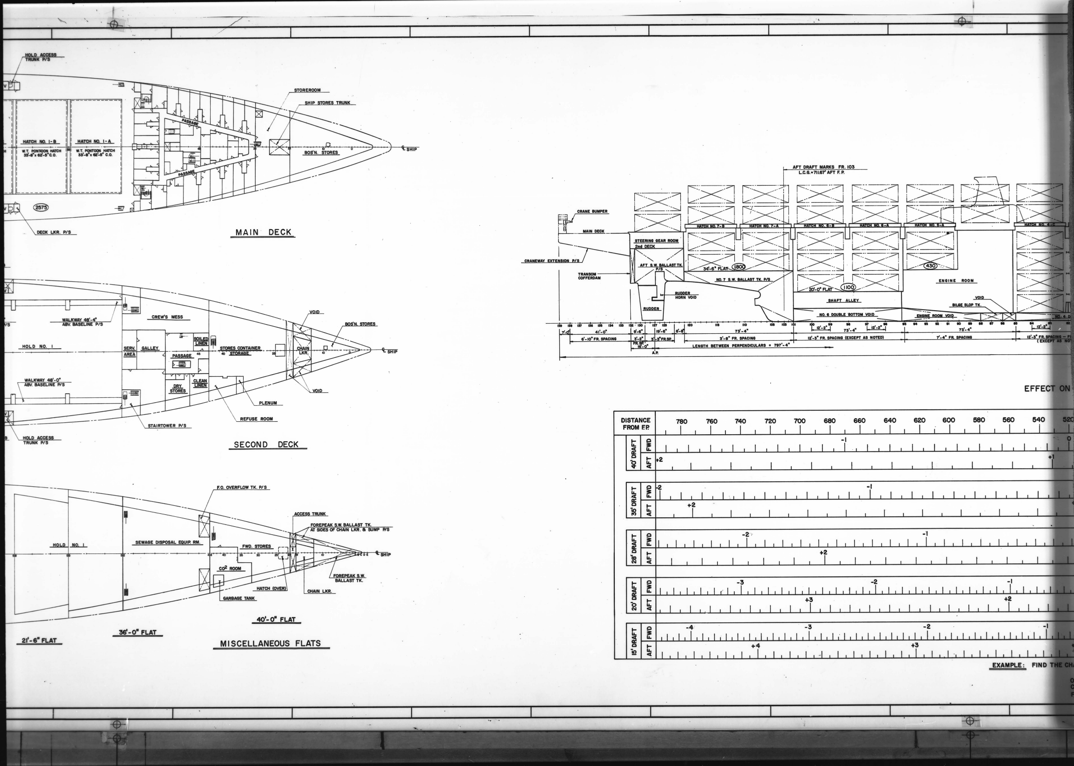


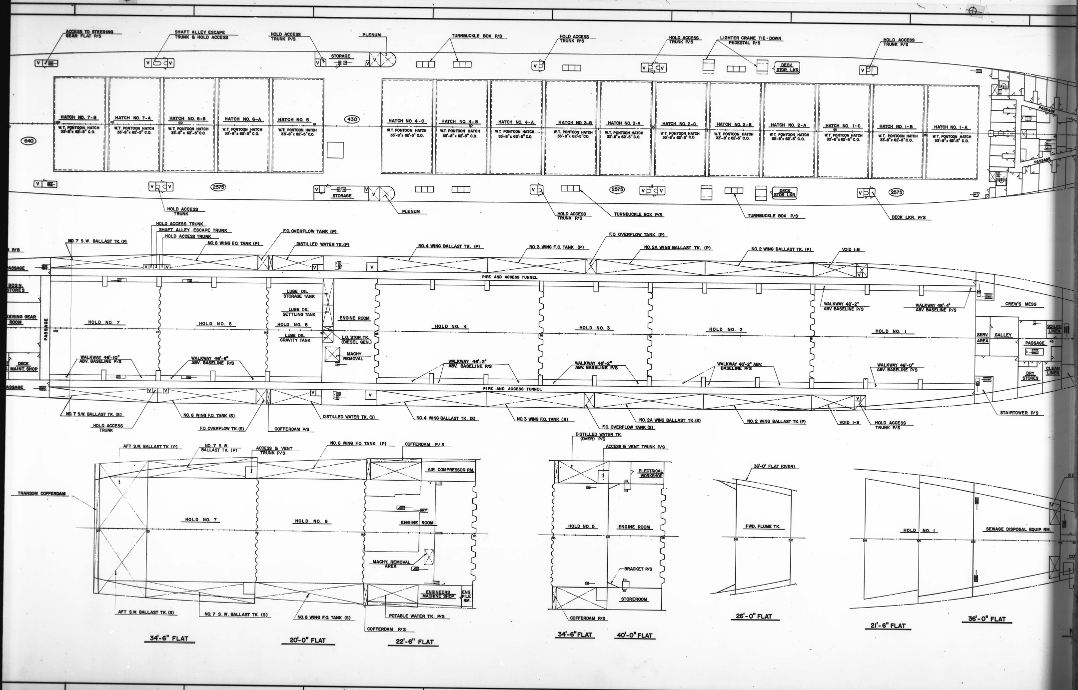
EXAMPLE: FIND THE CHANGE IN DRAFT AT DRAFT MARKS AFTER LOADING A 300 TON LIGHTER IN HOLD NO. 2C (L.C.G. 356'-0" AFT OF F.P.)

		FWD.		AFT
ORIGINAL DRAFT AT DRAFT MARKS		27' 9.00"		27' 10.00"
CORRECTION FROM TABLE OF 28'-0" DRAFT DIRECTLY BENEATH WEIGHT	(300 ÷ 100) x (1.14) =	+ 3.42"	(300 ÷ 100) x (0.41) =	+ 1.23"
FINAL DRAFT		28' 0.42"		27' 11.23"

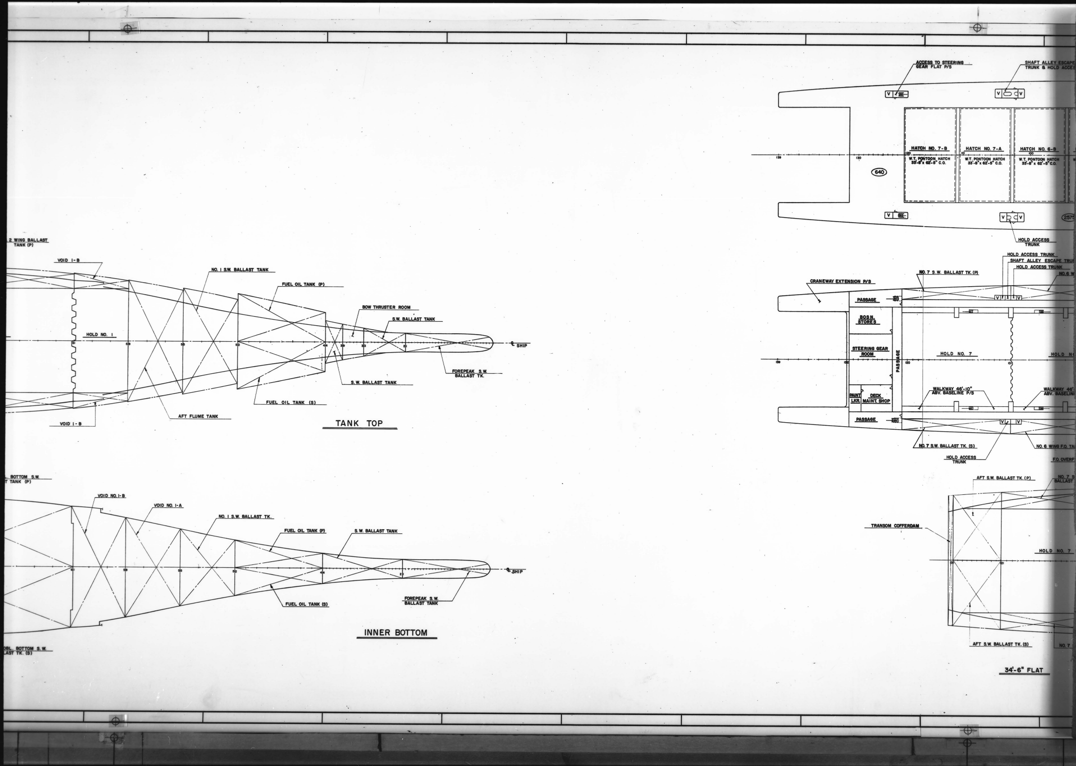
NOTE: THE CORRECTIONS ARE COMPUTED FOR FIVE DRAFTS TO FACILITATE INTERPOLATION, BUT IN PRACTICE IT WILL BE SUFFICIENTLY ACCURATE TO REFER TO THE TABLE NEAREST SHIP'S DRAFT.

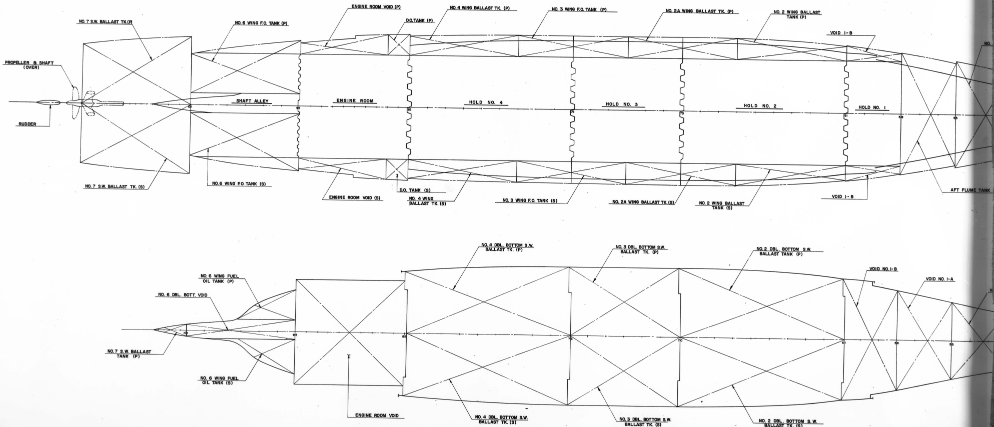
WHEN DISCHARGING USE THE TABLE AS FOR LOADING AND CHANGE THE + AND – SIGNS.


HOLD ACCESS TRUNK P/S
STOREROOM
SHIP STORES TRUNK
PASSAGE
HATCH NO. 1-B
W.T. PONTOON HATCH 33'-8" x 62-5" C.O.
HATCH NO. 1-A
W.T. PONTOON HATCH 33'-8" x 62-5" C.O.
BOS'N. STORES
℄ SHIP
DECK LKR. P/S
MAIN DECK
WALKWAY 48'-4" ABV. BASELINE P/S
CREW'S MESS
VOID
BOS'N. STORES
HOLD NO. 1
SERV. AREA
GALLEY
SOILED LINEN
STORES CONTAINER STORAGE
CHAIN LKR.
PASSAGE
WALKWAY 48'-0" ABV. BASELINE P/S
DRY STORES
CLEAN LINEN
PLENUM
REFUSE ROOM
STAIRTOWER P/S
HOLD ACCESS TRUNK P/S
SECOND DECK
F.O. OVERFLOW TK. P/S
ACCESS TRUNK
FOREPEAK S.W. BALLAST TK. AT SIDES OF CHAIN LKR. & SUMP P/S
SEWAGE DISPOSAL EQUIP. RM.
FWD. STORES
CO² ROOM
GARBAGE TANK
HATCH (OVER)
CHAIN LKR.
FOREPEAK S.W. BALLAST TK.
40'-0" FLAT
21'-6" FLAT
36'-0" FLAT
MISCELLANEOUS FLATS
AFT DRAFT MARKS FR. 103
L.C.G.=711.67' AFT F.P.
CRANE BUMPER
MAIN DECK
STEERING GEAR ROOM
2nd DECK
AFT S.W. BALLAST TK. P/S
CRANEWAY EXTENSION P/S
TRANSOM COFFERDAM
HATCH NO. 7-B
HATCH NO. 7-A
HATCH NO. 6-B
HATCH NO. 6-A
HATCH NO. 5-A
34'-6" FLAT
NO. 7 S.W. BALLAST TK. P/S
20'-0" FLAT
ENGINE ROOM
RUDDER HORN VOID
RUDDER
SHAFT ALLEY
VOID
BILGE SLOP TK.
NO. 6 DOUBLE BOTTOM VOID
ENGINE ROOM VOID
6'-10" FR. SPACING
3'-8" FR. SPACING
12'-3" FR. SPACING (EXCEPT AS NOTED)
7'-4" FR. SPACING
LENGTH BETWEEN PERPENDICULARS = 797'-4"
A.P.
EFFECT ON
DISTANCE FROM F.P.
780 760 740 720 700 680 660 640 620 600 580 560 540 520
40' DRAFT
35' DRAFT
28' DRAFT
20' DRAFT
15' DRAFT
FWD
AFT
EXAMPLE: FIND THE CH

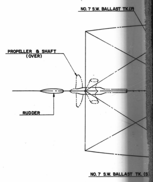


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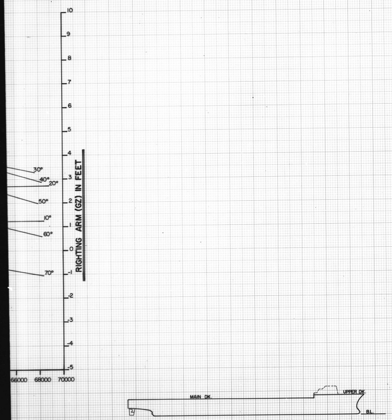

ACCESS TO STEERING GEAR FLAT P/S
SHAFT ALLEY ESCAPE TRUNK & HOLD ACCESS
HATCH NO. 7-B
W.T. PONTOON HATCH 33'-8" x 62'-5" C.O.
HATCH NO. 7-A
W.T. PONTOON HATCH 33'-8" x 62'-5" C.O.
HATCH NO. 6-B
W.T. PONTOON HATCH 33'-8" x 62'-5" C.O.
640
HOLD ACCESS TRUNK
HOLD ACCESS TRUNK
SHAFT ALLEY ESCAPE TRUNK
HOLD ACCESS TRUNK
NO. 7 S.W. BALLAST TK. (P)
CRANEWAY EXTENSION P/S
PASSAGE
BOS'N. STORES
STEERING GEAR ROOM
PASSAGE
HOLD NO. 7
WALKWAY 46'-10" ABV. BASELINE P/S
PAINT LKR.
DECK MAINT. SHOP
PASSAGE
NO. 7 S.W. BALLAST TK. (S)
HOLD ACCESS TRUNK
NO. 6 WING F.O. TANK
F.O. OVERFLOW
AFT S.W. BALLAST TK. (P)
TRANSOM COFFERDAM
HOLD NO. 7
AFT S.W. BALLAST TK. (S)
34'-6" FLAT
2 WING BALLAST TANK (P)
VOID I-B
NO. I S.W. BALLAST TANK
FUEL OIL TANK (P)
BOW THRUSTER ROOM
S.W. BALLAST TANK
HOLD NO. I
SHIP
FOREPEAK S.W. BALLAST TK.
S.W. BALLAST TANK
FUEL OIL TANK (S)
AFT FLUME TANK
VOID I-B
TANK TOP
BOTTOM S.W. TANK (P)
VOID NO. I-B
VOID NO. I-A
NO. I S.W. BALLAST TK.
FUEL OIL TANK (P)
S.W. BALLAST TANK
SHIP
FUEL OIL TANK (S)
FOREPEAK S.W. BALLAST TANK
INNER BOTTOM
DBL. BOTTOM S.W. BALLAST TK. (S)



NO. 7 S.W. BALLAST TK.(P)
NO. 6 WING F.O. TANK (P)
ENGINE ROOM VOID (P)
D.O. TANK (P)
NO. 4 WING BALLAST TK. (P)
NO. 3 WING F.O. TANK (P)
NO. 2A WING BALLAST TK. (P)
NO. 2 WING BALLAST TANK (P)
VOID 1-B
PROPELLER & SHAFT (OVER)
RUDDER
SHAFT ALLEY
ENGINE ROOM
HOLD NO. 4
HOLD NO. 3
HOLD NO. 2
HOLD NO. 1
NO. 7 S.W. BALLAST TK. (S)
NO. 6 WING F.O. TANK (S)
ENGINE ROOM VOID (S)
D.O. TANK (S)
NO. 4 WING BALLAST TK. (S)
NO. 3 WING F.O. TANK (S)
NO. 2A WING BALLAST TK. (S)
NO. 2 WING BALLAST TANK (S)
VOID 1-B
AFT FLUME TANK
NO. 4 DBL. BOTTOM S.W. BALLAST TK. (P)
NO. 3 DBL. BOTTOM S.W. BALLAST TK. (P)
NO. 2 DBL. BOTTOM S.W. BALLAST TANK (P)
VOID NO. 1-B
VOID NO. 1-A
NO. 6 WING FUEL OIL TANK (P)
NO. 6 DBL. BOTT. VOID
NO. 7 S.W. BALLAST TANK (P)
NO. 6 WING FUEL OIL TANK (S)
ENGINE ROOM VOID
NO. 4 DBL. BOTTOM S.W. BALLAST TK. (S)
NO. 3 DBL. BOTTOM S.W. BALLAST TK. (S)
NO. 2 DBL. BOTTOM S.W. BALLAST TK. (S)



NO.7 S.W. BALL
TANK (P)



GENERAL NOTES

1. RIGHTING ARMS MAY BE OBTAINED FOR ANY DESIRED CENTER OF GRAVITY BY SUBTRACTING 39'-0" FROM THE ACTUAL V.C.G. THIS DIFFERENCE TIMES THE SINE OF THE ANGLE OF INCLINATION GIVES THE RIGHTING ARM CORRECTION TO BE SUBTRACTED FROM THE ARMS OBTAINED FROM THE CURVES AT THE CORRESPONDING DISPLACEMENT.

   IF THE ACTUAL V.C.G. IS LOWER THAN 39'-0", THE RIGHTING ARM CORRECTION IS ADDED TO THE ARM SHOWN ON THE CURVES.

2. THE HEAVY LINE IN THE PROFILE INDICATES THE EXTENT OF THE HULL ASSUMED WATERTIGHT FOR THESE CALCULATIONS.

PRINCIPAL DIMENSIONS

LENGTH OVERALL (EXCLUDING CRANE OVERHANG) ____ 845'-4"

LENGTH BETWEEN PERPENDICULARS ____ 797'-4"

SCANTLING DRAFT (MOLDED) ____ 38'-0"

BEAM, MAX. (MOLDED) ____ 100'-0"

DEPTH TO MN. DK. AT SIDE (MIN. MOLDED) ____ 60'-0"

REVISIONS

REV	ZONE	DESCRIPTION

REFERENCES

REV	NO	TITLE	DRAWING NO

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO: C7-1000

WATERMAN STEAMSHIP CORP — LASH

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY: A. RICHOUX DATE: 11-13-79
CHECKED BY: NPS DATE: 11-13-79
APVD: [signature] 11-15-79
APVD: [signature] 11/15/79 PROJECT MANAGER
APVD: NOT REQ'D. VP/CHIEF ENGINEER

CROSS CURVES OF STABILITY

SIZE: H — A S I DWG NO: C7-1000 29-01-02 — REV: O — SCALE: —

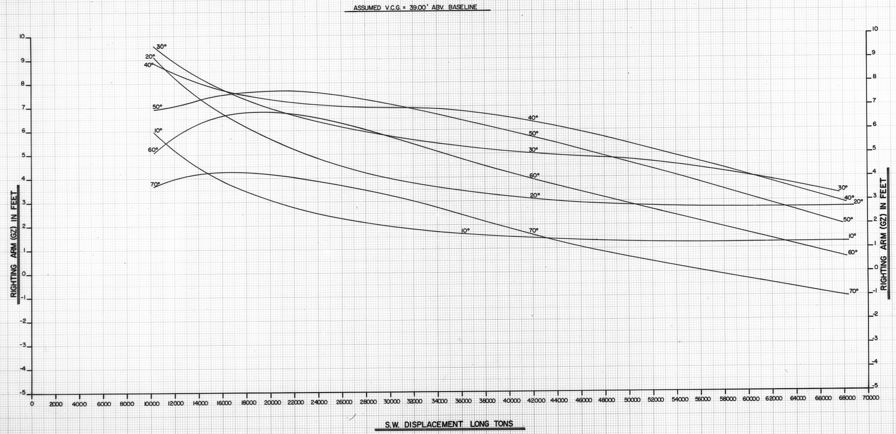
A S I DWG NO 29-01-02 REV O

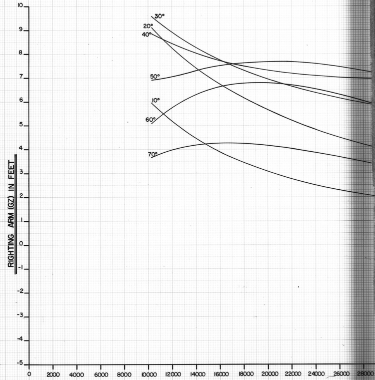
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MA. NO. H-197 BLDR. NO. 29-01-02
FRAME NO. 1


ASSUMED V.C.G. = 39.00' ABV. BASELINE
RIGHTING ARM (GZ) IN FEET
S.W. DISPLACEMENT LONG TONS
10°
20°
30°
40°
50°
60°
70°
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
20000
22000
24000
26000
28000
30000
32000
34000
36000
38000
40000
42000
44000
46000
48000
50000
52000
54000
56000
58000
60000
62000
64000
66000
68000
70000


RIGHTING ARM (GZ) IN FEET
10
9
8
7
6
5
4
3
2
1
0
-1
-2
-3
-4
-5
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
20000
22000
24000
26000
28000
30°
20°
40°
50°
10°
60°
70°

RED. 8X DATE 7-81
MA. NO. H-198 BLDR. NO. 29-01-03
FRAME NO. 1

DISTRIBUTION

DEPARTMENT	PRELIM	0	1	2
PRODUCTION		15	10	10
PROD PLANNING		1	1	1
MOLD LOFT				
PLANT ENGR & MAINT				
ESTIMATING				
PROGRAM MANAGER		1	1	1
QUALITY CONTROL				
ELECTRICAL				
ENGR STANDARDS				
FILES & RECORDS		1	1	1
HULL				
HULL COMPOSITE				
DESIGN		1	1	1
OUTFITTING				
STL TAKE OFF				
H V A C				
MATERIAL REQN				
MECHANICAL				
MECH COMPOSITE				
BAYOU BLACK				
HARVEY				
SERVICE FOUNDRY				
JOINER CONTRACTOR				
ADMEASURER				
MARAD (WASH)				1
MARAD (YARD)				1
OWNER (HOME)		2	1	4
OWNER (YARD)		1		
ABS (NY)				
ABS (NO)				
ABS (YARD)				
USCG (NO)		2		2
USCG (YARD)			1	
USPHS				
RAYTHEON		1	1	1
[illegible]		1	1	1
[illegible] (HOME)			3	3
[illegible] (YARD)			1	1
TOTAL		[illegible]	[illegible]	[illegible]
PARTIAL ISSUE				
DATE OF ISSUE		[illegible]	[illegible]	[illegible]

Form B-PD/IX-C (9-78)

INDEX

SIZE B | REVISION | ASI DWG NO C7-1000 29-01-03 | SH NO 2

ASI DWG NO 29-01-03 REV 2

GENERAL NOTES

RESERVATIONS

NO.	DESCRIPTION
1	~~DESCRIPTION OF SOUNDING TUBE & 98% SOUNDING INFO RESERVED PENDING TUBE SURVEY~~

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

ASI JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY A. RICHOUX DATE 1-8-80

CHECKED BY J FISHER DATE 1-10-80

APVD [illegible] 1/14/80

APVD [illegible] PROJECT MANAGER 1/15/80

APVD NOT REQ'D V/P CHIEF ENGINEER

TANK CAPACITY CURVES

SIZE B | ASI DWG NO C7-1000 29-01-03 | REV 2

SCALE — | SH NO 1 OF 43

REV	NO	TITLE	DRAWING NO

REFERENCES

Form B-TB-W (12-77)

INDEX

INDEX

SH NO	TITLE

SIZE B | REVISION | ASI DWG NO C7-100 29-01-03 | SH NO 3

Form B-IX (12-78)

GENERAL NOTES

1. ALL TANK CAPACITIES AND CENTERS OF GRAVITY WERE CALCULATED USING AN I.B.M. COMPUTER.
2. THE VERTICAL CENTERS OF GRAVITY ARE PLOTTED AGAINST CAPACITY.
3. THE FOLLOWING DEDUCTIONS FOR STRUCTURES HAVE BEEN USED:
   - A. FORE AND AFT PEAK TANKS 2.75%
   - B. ANTI-TOLL TANKS 2.0%
   - C. S. W. BALLAST TANKS 2.0%
   - D. FUEL OIL TANKS 2.0%
   - E. DIESEL OIL TANKS 2.0%
   - F. LUBE OIL TANKS 2.0%
   - G. POTABLE WATER OR DISTILLED WATER TANKS 2.0%
4. PLOTS OF CAPACITY AND VCG ARE BASED ON ZERO FT [illegible] TRIM

GENERAL NOTES

SIZE B | REVISION | A.S.I. DWG. NO. C7-1000 29-01-03 | SHT. NO. 4

Form B-GN-C (1-77)

REFERENCES

REV	NO	TITLE	DRAWING NO

REFERENCES

REV	NO	TITLE	DRAWING NO

Form B-8F-C (3-79)

SIZE B | REVISION | ASI DWG NO C7-1000 29-01-03 | SH NO 6

REVISIONS

REV	SH	DESCRIPTION	BY	ASI APRVD DATE	OWNER APRVD DATE
1		1. ADDED SOUNDING TUBES TO CURVES AND REMOVED RESERVATION NO.1 2. REVISED MLO SUMP TANK TO INCLUDE DRAINWELL 3. REVISED SUMMARY TABLES TO CORRECT.	JTF 6-16-80	6/19/80	
2	32	1. REVISED VCG, TANK BOTTOM, AND TANK TOP FOR 400 GALLON DSL. GEN. DAY TANK TO CORRECT.	JTF 9-9-80	9/10/80	

REVISIONS

REV	SH	DESCRIPTION

Form B-8Y-C (7-78)

SIZE B | ASI DWG NO C7-1000 29-01-03 | SH NO 5

CONVERSION FACTORS TABLE

A. THE FOLLOWING DENSITIES ARE USED:

1. Fuel Oil . . . . 37.23 Cu. Ft/L. Ton
2. Lubricating Oil . . . . 39.00 Cu. Ft/L. Ton
3. Salt Water . . . . 35.00 Cu. Ft/L. Ton
4. Fresh Water . . . . 36.00 Cu. Ft/L. Ton
5. Diesel Oil . . . . 41.04 Cu. Ft/L. Ton

B. TO CONVERT FROM GALLONS, THE FOLLOWING FACTORS MAY BE USED:

1. Barrels . . . . = Gals/42
2. Cubic Feet . . . . = Gals/7.481
3. L. Tons Fuel Oil . . . . = Gals/278.518
4. L. Tons Lubricating Oil . . . . = Gals/291.759
5. L. Tons Salt Water . . . . = Gals/261.835
6. L. Tons Fresh Water . . . . = Gals/269.316
7. L. Tons Diesel Oil . . . . = Gals/307.020
8. Barrels . . . . = Cu. Ft. (.1781)

NOTE: ALL TONS USED IN THIS BOOKLET ARE TONS OF 2240#

Form B-WS-C (1-78)

SIZE B | REVISION | ASI DWG NO C7-1000 29-01-03 | SH NO 7

BALLAST TANK SUMMARY

TANK	FRAME	CAPACITY 100% GALLONS	CAPACITY 100% S.W. L. TONS	CAPACITY 98% S.W. L. TONS	V.C.G. A.B.V. B.L.	L.C.G. FROM F.P.	SHEET NO.
FOREPEAK	- 8-21	139,074.75	531.15	520.53	23.47	21.18	12
FWD BALL. TK. CL	21-44	227,659.13	869.48	852.09	22.22	70.79	13
#1 S.W. BALL. TK. ℄	52-55	344,012.69	1,313.85	1,287.57	14.77	173.54	14
#2 DBL. BOT. S.W. BALL. TK. PORT	61-70	181,235.75	692.18	678.34	3.55	321.63	15
#2 DBL. BOT. S.W. BALL. TK. STBD.	61-70	181,235.75	692.18	678.34	3.55	321.63	15
#3 DBL. BOT. S.W. BALL. TK. PORT	70-76	129,786.56	495.68	485.77	3.57	411.00	16
#3 DBL. BOT. S.W. BALL. TK. STBD.	70-76	129,786.56	495.68	485.77	3.57	411.00	16
#4 DBL. BOT. S.W. BALL. TK. PORT	76-85	177,218.13	676.83	663.29	3.57	499.74	17
#4 DBL. BOT. S.W. BALL. TK. STBD.	76-85	177,218.13	676.83	663.29	3.57	499.74	17
#7 S.W. BALL. TK. P.	101-121	449,793.13	1,717.85	1,683.49	32.91	736.77	18
#7 S.W. BALL. TK. S.	101-121	342,341.19	1,307.47	1,281.32	35.36	737.18	19
AFT. S.W. BALL. TK. P.	121-132	201,087.75	767.99	752.63	39.99	793.32	20
AFT. S.W. BALL. TK. S	121-132	201,087.75	767.99	752.63	39.99	793.32	20
#2 WING BALL. TK. P.	61-67	350,682.25	1,339.33	1,312.54	34.11	302.30	21
#2 WING BALL. TK. S.	61-67	350,682.25	1,339.33	1,312.54	34.11	302.30	21
#2A WING BALL. TK. P.	67-73	360,218.94	1,375.75	1,348.24	32.82	374.36	22
#2A WING BALL. TK. S.	67-73	360,218.94	1,375.75	1,348.24	32.82	374.36	22
#4 WING BALL. TK. P.	79-85	372,028.25	1,420.85	1,392.43	33.70	520.73	23
#4 WING BALL. TK. S.	79-85	372,028.25	1,420.85	1,392.43	33.70	520.73	23
TOTAL		5,047,396.15	19,277.02	18,891.48	26.25	446.00	

Form B-WS-C (1-78)

SIZE B | REVISION | ASI DWG NO C7-1000 29-01-03 | SH NO 8

LUBE OIL TANK- SUMMARY

TANK	FRAME	CAPACITY 100% GALLONS	98% BARRELS	98% L.O. L. TONS	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	SHEET NO.
L.O. STORAGE TK. P.	89-90	8,463.70	197.49	28.43	51.88	590.66	33
L.O. STOR. DIE. GEN.	89-90	1,255.45	29.29	4.22	51.87	590.66	34
L.O. GRAVITY TK. S.	89-90	4,406.50	102.82	14.80	52.62	590.66	35
L.O. SETTLING TK. P.	89-90	6,015.77	140.37	20.21	52.28	590.47	36
MN. L.O. SUMP.	93-94	5,658.18	132.02	19.01	10.81	618.53	37
TOTAL		25,799.60	601.99	86.67	43.09	596.73	

FRESH WATER TANK- SUMMARY

TANK	FRAME	CAPACITY 100% GALLONS	100% F.W. L. TONS	98% F.W. L. TONS	V.C.G ABV. B.L.	L.C.G FROM F.P.	SHEET NO.
DIST. WATER TK. P.	90-95	65,428.82	242.94	238.08	47.58	613.13	38
DIST. WATER TK. S.	90-95	65,428.82	242.94	238.08	47.58	613.13	38
POTABLE WATER TK. P	90-95	40,785.01	151.44	148.41	27.03	610.91	39
POTABLE WATER TK. S.	90-95	40,785.01	151.44	148.41	27.03	610.91	39
TOTALS		212,427.66	788.76	772.98	39.69	612.28	

Form B-WS-C (1-78)

SIZE B | REVISION | ASI DWG NO C7-1000 29-01-03 | SH NO 10

FUEL OIL TANK - SUMMARY

TANK	FRAME	CAPACITY 100% GALLONS	98% BARRELS	98 F.O. L. TONS	V.C.G ABV. B.L.	L.C.G FROM F.P.	SHEET NO.
F.O. STORAGE TANK P	44-52	282,545.34	6,592.72	994.17	20.79	127.80	24
F.O. STORAGE TANK S	44-52	282,545.34	6,592.72	994.17	20.79	127.80	24
#3 WING F.O. TANK P	73-79	369,676.86	8,625.79	1,300.75	33.07	447.56	25
#3 WING F.O. TANK S	73-79	369,676.86	8,625.79	1,300.75	33.07	447.56	25
#6 WING F.O. TANK P	95-101	368,404.26	8,596.10	1,296.28	31.23	663.88	26
#6 WING F.O. TANK S	95-101	385,188.72	8,987.74	1,355.33	30.47	663.78	27
F.O. STOR. OVFW. P	44-45	5,854.82	136.61	20.60	40.80	99.41	28
F.O. STOR. OVFW. S.	44-45	5.854.82	136.61	20.60	40.80	99.41	28
3 WING F.O. OVFW P.	73-73.3	5,403.72	126.09	19.01	55.06	414.67	29
3 WING F.O. OVFW. S.	73-73.3	5,403.72	126.09	19.01	55.06	414.67	29
6 WING F.O. OVFW. P.	95-95.3	5,403.72	126.09	19.01	55.06	634.67	30
6 WING F.O. OVFW. S.	95-95.3	5,403.72	126.09	19.01	55.06	634.67	30
TOTALS		2,091,361.90	48,798.44	7,358.69	29.22	437.94	

DIESEL OIL TANK - SUMMARY

TANK	FRAME	CAPACITY 100% GALLONS	98% BARRELS	98% D.O. L. TONS	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	SHEET NO.
D.O. TANK PORT.	85-87	17,585.98	410.34	56.13	15.82	564.83	31
D.O. TANK STBD.	85-87	17,585.98	410.34	56.13	15.82	564.83	31
400 GAL. EMER. DIE. GEN. DAY TANK	87-88	393.66	9.19	1.26	72.93	574.56	32
TOTAL		35,565.62	829.87	113.52	16.45	564.94	

Form B-WS-C (1-78)

SIZE B | REVISION | ASI DWG NO C7-1000 29-01-03 | SH NO 9

PASSIVE STABILIZER TANK- SUMMARY

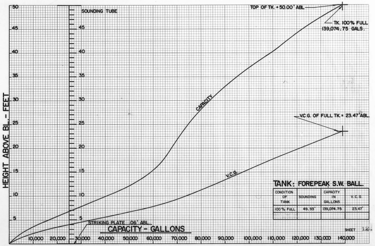
TANK	FRAME	CAPACITY 100% GALLONS	100% S.W. L. TONS	98% S.W. L. TONS	V.C.G ABV. B.L.	L.C.G FROM F.P.	SHEET NO.
FWD. FLUME TANK	52-55	181,120.00	691.73	677.90	31.09	173.31	40
AFT. FLUME TANK	55-58	258,543.56	987.43	967.68	14.76	209.97	41
TOTAL		439,663.56	1,679.16	1,645.58	21.49	194.87	

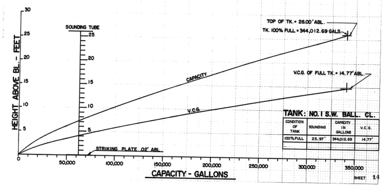
SANITARY WASTE TANK-SUMMARY

TANK	FRAME	CAPACITY 100% GALLONS	100% CUBIC FT.	100% S.W. L. TONS.	V.C.G. ABV. B.L.	L.C.G. FROM F.P.	SHEET NO.
500 GAL. SEW. TK.	89-90	504.16	67.39	1.93	15.29	591.16	42
BILGE SLOP TANK	86-88	36,011.57	4,813.74	137.54	4.11	572.29	43

Form B-WS-C (1-78)

SIZE B | REVISION | ASI DWG NO C7-1000 29-01-03 | SH NO 11

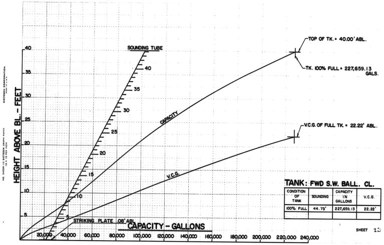




TANK: NO. 1 S.W. BALL. CL.

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	25.97'	344,012.69	14.77'

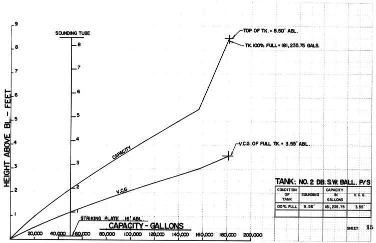
SHEET 14



TANK: FWD S.W. BALL. CL.

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	44.73'	227,659.13	22.22'

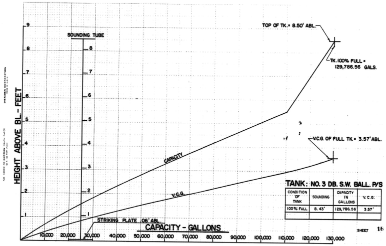
SHEET 13



TANK: NO. 2 DB. S.W. BALL. P/S

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	8.56'	181,235.75	3.55'

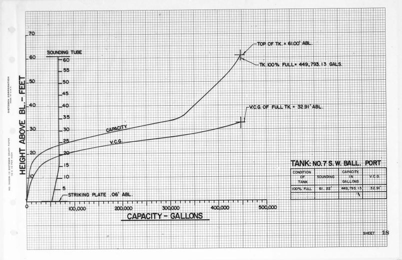
SHEET 15



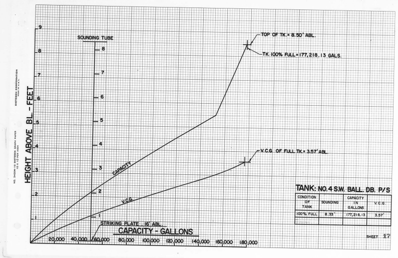
TANK: NO. 3 DB. S.W. BALL. P/S

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	8.43'	129,786.56	3.57'

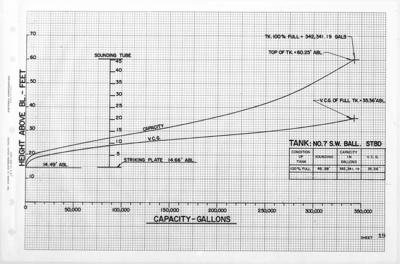
SHEET 16



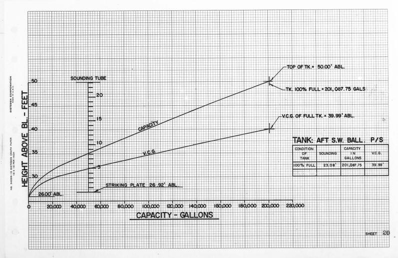
HEIGHT ABOVE BL. - FEET
SOUNDING TUBE
TOP OF TK. = 61.00' ABL.
TK. 100% FULL = 449,793.13 GALS.
V.C.G. OF FULL TK. = 32.91' ABL.
CAPACITY
V.C.G.
STRIKING PLATE .06' ABL.
CAPACITY - GALLONS
TANK: NO.7 S.W. BALL. PORT
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 61.22' | 449,793.13 | 32.91'
SHEET 18



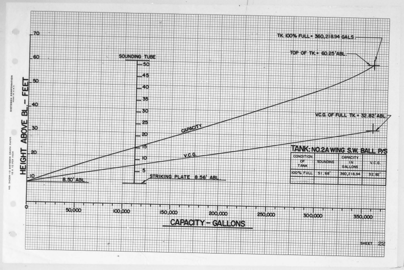
HEIGHT ABOVE BL. - FEET
SOUNDING TUBE
TOP OF TK. = 8.50' ABL.
TK. 100% FULL = 177,218.13 GALS.
V.C.G. OF FULL TK. = 3.57' ABL.
CAPACITY
V.C.G.
STRIKING PLATE .16' ABL.
CAPACITY - GALLONS
TANK: NO.4 S.W. BALL. DB. P/S
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 8.33' | 177,218.13 | 3.57'
SHEET 17

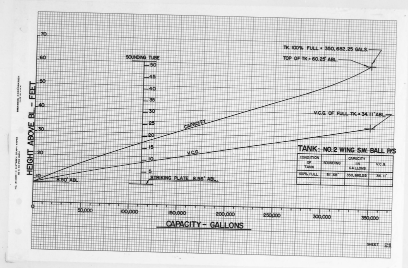


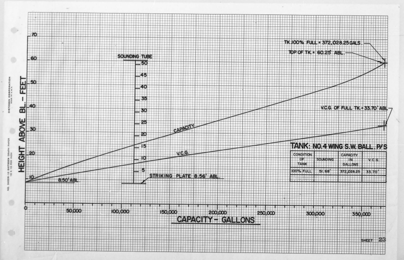
HEIGHT ABOVE BL. - FEET
SOUNDING TUBE
TK. 100% FULL = 342,341.19 GALS.
TOP OF TK. = 60.25' ABL.
V.C.G. OF FULL TK. = 35.36' ABL.
CAPACITY
V.C.G.
14.49' ABL.
STRIKING PLATE 14.66' ABL.
CAPACITY - GALLONS
TANK: NO.7 S.W. BALL. STBD
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 45.58' | 342,341.19 | 35.36'
SHEET 19

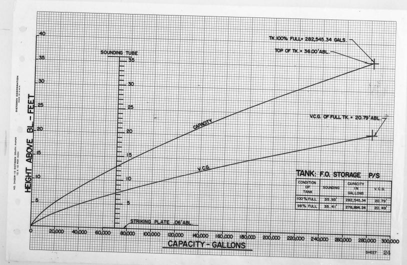


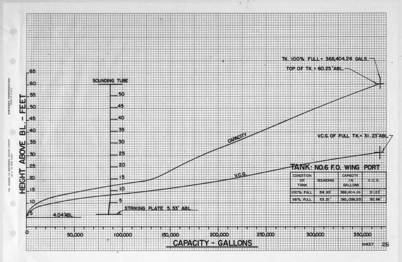
HEIGHT ABOVE BL. - FEET
SOUNDING TUBE
TOP OF TK. = 50.00' ABL.
TK. 100% FULL = 201,087.75 GALS
V.C.G. OF FULL TK. = 39.99' ABL.
CAPACITY
V.C.G.
26.00' ABL.
STRIKING PLATE 26.92' ABL.
CAPACITY - GALLONS
TANK: AFT S.W. BALL. P/S
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 23.08' | 201,087.75 | 39.99'
SHEET 20


TK. 100% FULL = 360,218.94 GALS.
TOP OF TK. = 60.25' ABL.
SOUNDING TUBE
V.C.G. OF FULL TK. = 32.82' ABL.
CAPACITY
V.C.G.
TANK: NO. 2A WING S.W. BALL P/S
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 51.68' | 360,218.94 | 32.82'
8.50' ABL.
STRIKING PLATE 8.56' ABL.
HEIGHT ABOVE BL. - FEET
CAPACITY - GALLONS
SHEET 22


TK. 100% FULL = 350,682.25 GALS.
TOP OF TK. = 60.25' ABL.
SOUNDING TUBE
V.C.G. OF FULL TK. = 34.11' ABL.
CAPACITY
V.C.G.
TANK: NO. 2 WING S.W. BALL P/S
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 51.68' | 350,682.25 | 34.11'
8.50' ABL.
STRIKING PLATE 8.56' ABL.
HEIGHT ABOVE BL. - FEET
CAPACITY - GALLONS
SHEET 21

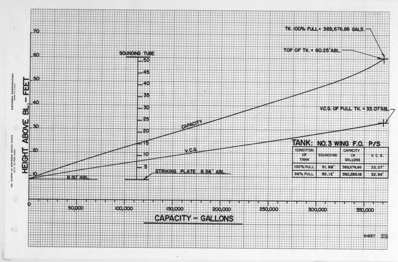

TK. 100% FULL = 372,028.25 GALS.
TOP OF TK. = 60.25' ABL.
SOUNDING TUBE
V.C.G. OF FULL TK. = 33.70' ABL.
CAPACITY
V.C.G.
TANK: NO. 4 WING S.W. BALL. P/S
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 51.68' | 372,028.25 | 33.70'
8.50' ABL.
STRIKING PLATE 8.56' ABL.
HEIGHT ABOVE BL. - FEET
CAPACITY - GALLONS
SHEET 23


TK. 100% FULL = 282,545.34 GALS.
TOP OF TK. = 36.00' ABL.
SOUNDING TUBE
V.C.G. OF FULL TK. = 20.79' ABL.
CAPACITY
V.C.G.
TANK: F.O. STORAGE P/S
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 35.93' | 282,545.34 | 20.79'
98% FULL | 35.41' | 276,894.24 | 20.49'
STRIKING PLATE .06' ABL.
HEIGHT ABOVE BL. - FEET
CAPACITY - GALLONS
SHEET 24



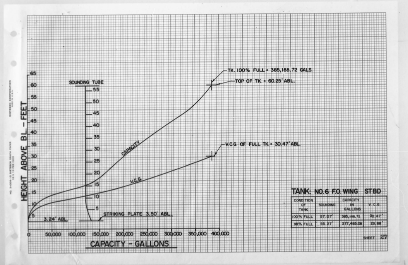
TANK: NO.6 F.O. WING PORT

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	54.93'	368,404.26	31.23'
98% FULL	53.21'	361,036.20	30.66'



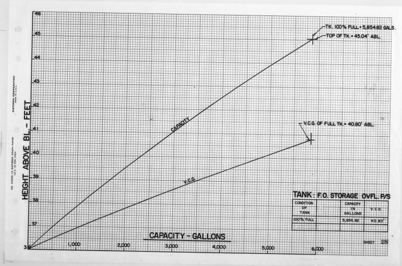
TANK: NO. 3 WING F.O. P/S

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	51.68'	369,676.86	33.07'
98% FULL	50.12'	362,283.18	32.54'



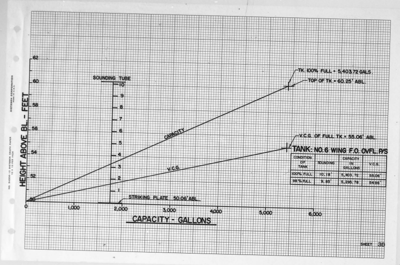
TANK: NO.6 F.O. WING STBD

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	57.07'	385,186.72	30.47'
98% FULL	55.27'	377,485.08	29.88'



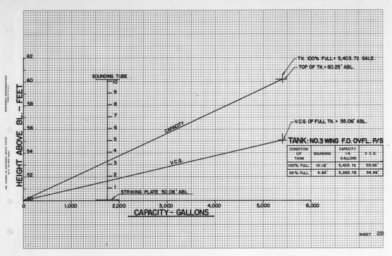
TANK: F.O. STORAGE OVFL. P/S

CONDITION OF TANK		CAPACITY IN GALLONS	V.C.G.
100% FULL		5,854.82	40.80'



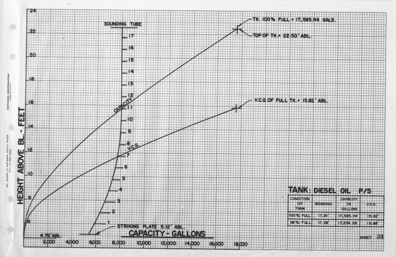
TANK: NO. 6 WING F.O. OVFL. P/S

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	10.18'	5,403.72	55.06'
98% FULL	9.85'	5,295.78	54.96'



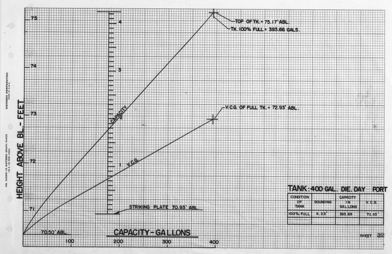
TANK: NO. 3 WING F.O. OVFL. P/S

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	10.18'	5,403.72	55.06'
98% FULL	9.85'	5,295.78	54.96'



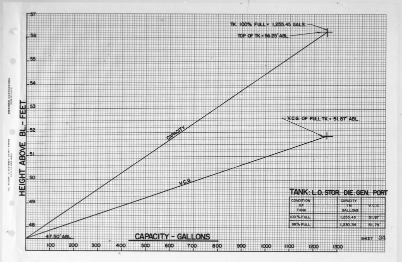
TANK: DIESEL OIL P/S

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	17.81'	17,585.98	15.82'
98% FULL	17.58'	17,234.26	15.68'



TANK: 400 GAL. DIE. DAY PORT

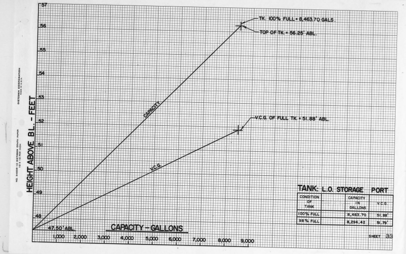
CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	4.23'	393.66	72.93'



TANK: L.O. STOR. DIE. GEN. PORT

CONDITION OF TANK		CAPACITY IN GALLONS	V.C.G.
100% FULL		1,255.45	51.87'
98% FULL		1,230.34	51.79'

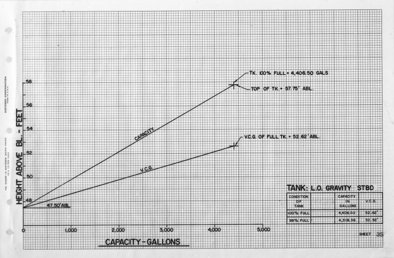
SHEET 34



TANK: L.O. STORAGE PORT

CONDITION OF TANK		CAPACITY IN GALLONS	V.C.G.
100% FULL		8,463.70	51.88'
98% FULL		8,294.42	51.79'

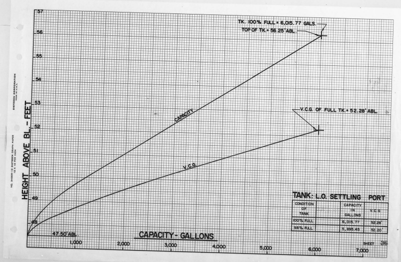
SHEET 33



TANK: L.O. GRAVITY STBD

CONDITION OF TANK		CAPACITY IN GALLONS	V.C.G.
100% FULL		4,406.50	52.62'
98% FULL		4,318.36	52.52'

SHEET 35

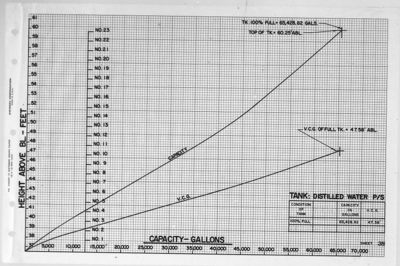


TANK: L.O. SETTLING PORT

CONDITION OF TANK		CAPACITY IN GALLONS	V.C.G
100% FULL		6,015.77	52.28'
98% FULL		5,895.45	52.20'

SHEET 36

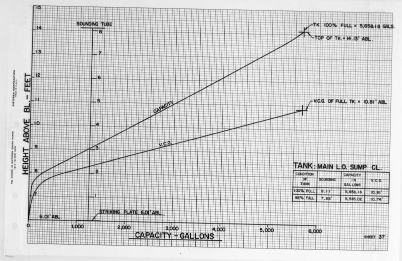
RED. 8X DATE 7-81
MA. NO. H-198 BLDR. NO. 29-01-03
FRAME NO. 9



TANK: DISTILLED WATER P/S

CONDITION OF TANK		CAPACITY IN GALLONS	V.C.G.
100% FULL		65,428.82	47.58'

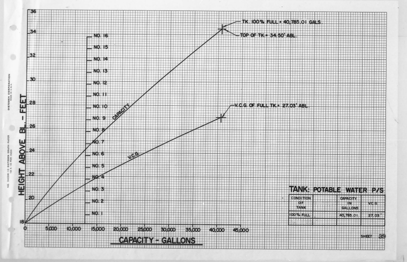
SHEET 38



TANK: MAIN L.O. SUMP CL.

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	8.11'	5,658.18	10.81'
98% FULL	7.88'	5,545.02	10.74'

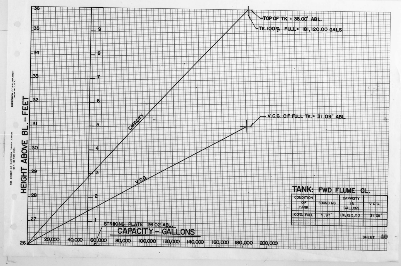
SHEET 37



TANK: POTABLE WATER P/S

CONDITION OF TANK		CAPACITY IN GALLONS	V.C.G.
100% FULL		40,785.01	27.03'

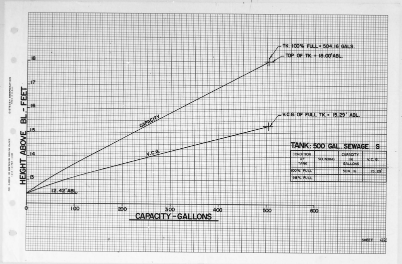
SHEET 39

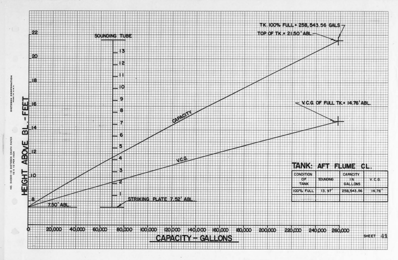


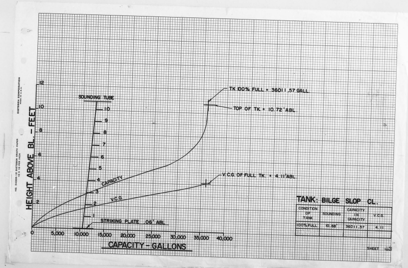
TANK: FWD FLUME CL.

CONDITION OF TANK	SOUNDING	CAPACITY IN GALLONS	V.C.G.
100% FULL	9.97'	181,120.00	31.09'

SHEET 40


TK. 100% FULL = 504.16 GALS.
TOP OF TK. = 18.00' ABL.
V.C.G. OF FULL TK. = 15.29' ABL.
CAPACITY
V.C.G.
12.42' ABL.
HEIGHT ABOVE BL.-FEET
CAPACITY-GALLONS
TANK: 500 GAL. SEWAGE S
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | | 504.16 | 15.29'
98% FULL
SHEET 42


TK. 100% FULL = 258,543.56 GALS.
TOP OF TK. = 21.50' ABL.
V.C.G. OF FULL TK. = 14.76' ABL.
SOUNDING TUBE
CAPACITY
V.C.G.
7.50' ABL.
STRIKING PLATE 7.52' ABL.
HEIGHT ABOVE BL.-FEET
CAPACITY - GALLONS
TANK: AFT FLUME CL.
CONDITION OF TANK | SOUNDING | CAPACITY IN GALLONS | V.C.G.
100% FULL | 13.97' | 258,543.56 | 14.76'
SHEET 41


TK 100% FULL = 36011.57 GALL.
TOP OF TK = 10.72' ABL.
V.C.G. OF FULL TK. = 4.11' ABL.
SOUNDING TUBE
CAPACITY
V.C.G.
STRIKING PLATE .06' ABL.
HEIGHT ABOVE BL. - FEET
CAPACITY - GALLONS
TANK: BILGE SLOP CL.
CONDITION OF TANK | SOUNDING | CAPACITY IN CAPACITY | V.C.G.
100% FULL | 10.68' | 36011.57 | 4.11
SHEET 43

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 1

A S I DWG NO 29-01-04 REV 1

EDWARD RUTLEDGE	C9-S-81f	2308	337
BENJAMIN HARRISON	C9-S-81f	2307	336
NAME OF VESSEL	M A DESIGN	A S I HULL NO	M A HULL NO

RESERVATIONS

NO.	DESCRIPTION

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY A. RICHOUX DATE 4-30-80
CHECKED BY DFN DATE 5-1-80
APVD 5/1/80
APVD PROJECT MANAGER J.J. Murphy 5/1/80
APVD NOT REQUIRED

TANK SOUNDING & ULLAGE TABLES

SIZE A A S I DRAWING NO C7-1000 29-01-04 REV 1
SCALE SH NO 1 OF 556

Form A-HTB-W (12-77)

DISTRIBUTION

REVISION

DEPARTMENT: PRODUCTION, PROD PLANNING, MOLD LOFT, PLANT ENGR & MAINT, ESTIMATING, PROGRAM MANAGER, QUALITY CONTROL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, BAYOU BLACK, HARVEY, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, MARAD (WASH), MARAD (YARD), OWNER (HOME), OWNER (YARD), ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, TOTAL, PARTIAL ISSUE, DATE OF ISSUE

SIZE A ASI DWG NO C7-1000 29-01-04 SH NO 2

Form A-HPD-C (9-78)

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2	PRINT DISTRIBUTION
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5-6	GENERAL NOTES
7	REVISIONS
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9	FUEL OIL TANK SUMMARY
10	MISC. TANK SUMMARY
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71-76	NO. 2 D.B. S.W. BALLAST S
77-82	NO. 3 D.B. S.W. BALLAST P
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89-94	NO. 4 D.B. S.W. BALLAST P
95-100	NO. 4 D.B. S.W. BALLLAST S
101-124	NO. 2 WING BALLAST P
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SIZE A REVISION ASI DWG NO C7-1000 29-01-04 SH NO 3

Form A-HIX-C (2-79)

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329-346	F.O. STORAGE S
347-370	NO. 3 WING F.O. P
371-394	NO. 3 WING F.O. S
395-400	NO. 3 WING F.O. OVFL. P
401-406	NO. 3 WING F.O. OVFL. S
407-430	NO. 6 WING F.O. P
431-454	NO. 6 WING F.O. S
455-460	NO. 6 WING F.O. OVFL. P
461-466	NO. 6 WING F.O. OVFL. S
467-472	L.O. SOTRAGE P
473-478	L.O. STORAGE DIESEL GENERATOR
479-484	L.O. GRAVITY P
485-490	L.O. SETTLING P
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497-508	DIESEL OIL P
509-520	DIESEL OIL S
521-526	400 GAL. EMER. DIESEL GEN. DAY TK.
527-532	DISTILLED WATER P/S
533-538	POTABLE WATER P/S
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545-550	AFT FLUME
551-556	BILGE SLOP CL.

SIZE A REVISION ASI DWG NO C7-1000 29-01-04 SH NO 4

Form A-HIX-C (2-79)

GENERAL NOTES

1. Sounding and Ullage Tables are given in Feet and inches.
2. All calculations were done by an IBM 3033 Computer, using molded offsets and heights with a deduction for the structure.
3. The following deductions for the structure have been used:
   - A) Fore and Aft Tanks 2.75%
   - B) Anti-Roll Tanks 2.00%
   - C) S. W. Ballast Tanks 2.00%
   - D) Fuel Oil Tanks 2.00%
   - E) Diesel Oil Tanks 2.00%
   - F) Lube Oil Tanks 2.00%
   - G) Potable & Distilled Wtr. Tk. 2.00%
4. The following Densities were used:
   - A) Fuel Oil . . . . 37.23 Cu.Ft/L. Tons
   - B) Salt Water . . . . 35.00 Cu.Ft/L. Tons
   - C) Fresh Water . . . . 36.00 Cu.Ft/L. Tons
   - D) Diesel Oil . . . . 41.04 Cu.Ft/L. Tons
   - E) Lube Oil . . . . 39.00 Cu.Ft/L. Tons
5. To convert from gallons, the following factors may be used:

Barrels	=	Gals/42	Long Tons S.W.	=	Gals/261.35
Cubic Feet	=	Bals/7.481	Long Tons F.W.	=	Gals/269.316
Long Tons F.O.	=	Gals/278.518	Barrels	=	Cu. Ft. (.1781)
Long Tons D.O	=	Gals/307.020			
Long Tons L.O	=	Gals/291.759			

SIZE A REVISION A.S.I. DWG. NO. C7-1000 29-01-04 SHT. NO. 5

Form A-HGN-C (1/77)

GENERAL NOTES

6. To find the capacity of the Lube Oil Tanks:
   - A) Measure from a point 48'-2-3/4" above baseline to the liquid level in the sight glass.
   - B) With this distance, enter the sounding tables and read the capacity.

SIZE A REVISION A.S.I. DWG. NO. C7-1000 29-01-04 SHT. NO. 6

Form A-HGN-C (1/77)

REVISIONS

REV	SH	DESCRIPTION
1	10, 521-526	400 GAL. DG. DAY TK. REVISED PER COMMENT OF F&G LETTER SERIAL - L-772/3084 OF AUG. 26, 1980 BY: A.R 9-17-80 APVD: 9-17-80

SIZE A ASI DWG NO C7-1000 29-01-04 SH NO 7

Form A-HRV-C (10-78)

BALLAST TANK SUMMARY

TANK	FRAME	CAPACITIES 100% FULL GALLONS	CAPACITIES 100% FULL S.W.L.TONS	CAPACITIES 98% FULL S.W.L.TONS	100% V.C.G. ABOVE B.L. FEET	98% V.C.G. ABOVE B.L. FEET	L.C.G. FROM F.P. FEET	T.C.G. FROM C.L. FEET	FREE SURFACE FT.-TONS
FOREPEAK	-8-21	139074.75	531.15	520.53	23.47	22.93	21.18	-0.02	422.9
FWD. BALLAST CL.	21-44	227659.13	869.48	852.09	22.22	21.86	70.79	0.0	2954.7
NO.1 S.W. BALLAST CL.	52-55	344012.69	1313.85	1287.57	14.77	14.54	173.54	0.0	21687.9
NO.2 D.B. S.W. BALLAST P	61-70	181235.75	692.18	678.34	3.55	3.45	321.63	20.98	19453.8
NO.2 D.B. S.W. BALLAST S	61-70	181235.75	692.18	678.34	3.55	3.45	321.63	-20.98	19453.8
NO.3 D.B. S.W. BALLAST P	70-76	129786.56	495.68	485.77	3.57	3.47	411.00	22.07	14503.8
NO.3 D.B. S.W. BALLAST S	70-76	129786.56	495.68	485.77	3.57	3.47	411.00	-22.07	14503.8
NO.4 D.B. S.W. BALLAST P	76-85	177218.13	676.83	663.29	3.57	3.48	499.74	20.74	19111.9
NO.4 D.B. S.W. BALLAST S	76-85	177218.13	676.83	663.29	3.57	3.48	499.74	-20.74	19111.9
NO.2 WING BALLAST P	61-67	350682.25	1339.33	1312.54	34.11	33.59	302.30	42.29	555.9
NO.2 WING BALLAST S	61-67	350682.25	1339.33	1312.54	34.11	33.59	302.30	42.29	555.9
NO.2A WING BALLAST P	67-73	360218.94	1375.75	1348.24	32.82	32.28	374.36	42.89	584.5
NO.2A WING BALLAST S	67-73	360218.94	1375.75	1348.24	32.82	32.28	374.26	42.89	584.5
NO.4 WING BALLAST P	79-85	372028.25	1420.85	1392.43	33.70	33.17	520.73	42.64	584.8
NO.4 WING BALLAST S	79-85	372028.25	1420.85	1392.43	33.70	33.17	520.73	42.64	584.8
NO. 7 S.W. BALLAST P	101-121	449793.13	1717.85	1683.49	32.91	32.38	736.77	22.48	23686.7
NO. 7 S.W. BALLAST S	101-121	342341.19	1307.47	1281.32	35.36	34.87	737.18	30.53	8231.7
AFT S.W. BALLAST P	121-132	201089.69	768.00	752.64	39.99	39.79	793.32	20.16	6938.0
AFT S.W. BALLAST S	121-132	201089.69	768.00	752.64	39.99	39.79	793.32	20.16	6938.0
		5,047,400.03	19,277.04	18,891.50					

C7-1000 29-01-04 SHT. NO. 8

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 2

FUEL OIL TANK SUMMARY

TANK	FRAME	CAPACITIES 100% FULL GALLONS	100% FULL BARRELS	98% FULL BARRELS	100% FULL F.O.L.TONS	98% FULL F.O.L.TONS	V.C.G. ABOVE B.L. FEET	L.C.G. FROM F.P. FEET	T.C.G. FROM C.L. FEET	FREE SURFACE FT.-TONS
F.O. STORAGE P	44-52	282565.38	6727.27	6592.72	1014.60	994.31	20.79	127.80	10.12	2358.8
F. O. STORAGE S	44-52	282565.38	6727.27	6592.72	1014.60	994.31	20.79	127.80	10.12	2358.8
NO. 3 WING F.O. P	73-79	369703.38	8801.83	8625.79	1327.49	1300.94	33.07	447.56	42.81	549.6
NO. 3 WING F.O. S	73-79	369703.38	8801.83	8625.79	1327.49	1300.94	33.07	447.56	42.81	549.6
NO. 3 WING F.O. OVFL. P	73-73.3	5404.20	128.66	126.09	19.40	19.02	55.06	414.67	45.01	16.1
NO. 3 WING F.O. OVFL. S	73-73.3	5404.20	128.66	126.09	19.40	19.02	55.06	414.67	45.01	16.1
NO. 6 WING F.O. P	95-101	368430.75	8771.53	8596.10	1322.92	1296.46	31.73	663.88	34.53	4453.3
NO. 6 WING F.O. S	95-101	385216.50	9171.16	8987.74	1383.19	1355.52	30.47	663.78	33.32	6477.1
NO. 6 WING F.O. OVFL. P	95-95.3	5404.19	128.66	126.09	19.40	19.02	55.06	634.67	45.01	16.1
NO. 6 WING F.O. OVFL. S	95-95.3	5404.19	128.66	126.09	19.40	19.02	55.06	634.67	45.01	16.1
TOTAL		2,079,801.55	49,515.53	48,525.22	7,467.89	7,318.56				

C7-1000 29-01-04
SHT. NO. 9

MISC. TANK SUMMARY

TANK	FRAME	CAPACITIES 100% FULL GALLONS	100% FULL L.O. L.TON	100% FULL D.O. L.TONS	100% FULL F.W. L.TONS	100% FULL S.W. L.TONS	V.C.G. ABOVE B.L.(FT)	L.C.G. FROM F.P.(FT)	T.C.G. FROM C.L.(FT)	FREE SURFACE FT.-TONS
L.O. STORAGE P	89-90	8463.13	29.01				51.88	590.66	26.00	91.3
L.O. STORAGE DIESEL GENERATOR	89-90	1255.36	4.30				51.87	590.66	1.33	.3
L. O. GRAVITY P	89-90	4406.20	15.10				52.62	590.66	4.00	8.0
L. O. SETTLING P	89-90	6015.36	20.62				52.28	590.47	9.83	46.1
MAIN LUBE OIL SUMP	93-94	5657.80	19.39				10.81	618.53	0.0	61.3
DIESEL OIL PORT	85-87	17585.98		57.28			15.82	564.83	40.57	75.2
DIESEL OIL STBD	85-87	17585.98		57.28			15.82	564.83	40.57	75.2
400 GAL.EMER.DIESEL GEN.DAY TK.	87-88	393.63		1.28			72.93	574.56	48.42	.1
DISTILLED WATER PORT	90-95	65424.45			242.94		47.58	613.13	43.77	233.8
DISTILLED WATER STBD	90-95	65424.45			242.94		47.58	613.13	43.77	233.8
POTABLE WATER PORT	90-95	40782.28			151.44		27.03	610.91	40.10	137.8
POTABLE WATER STBD	90-95	40782.28			151.44		27.03	610.91	40.10	137.8
FWD FLUME	52-55	181107.88				691.73	31.09	173.31	0.0	29605.8
AFT FLUME	55-58	2,585,26.25				987.43	14.76	209.97	0.0	35,360.0
BILGE SLOP CL.	86-88	360,11.57				137.54	4.11	572.29	0.0	10,927.8
TOTAL		749,422.60	88.42	115.84	788.76	1,816.70				

C7-1000 29-01-04
SHT. NO. 10

11

WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	129	307	486	664	843	1021	1200	1378	1557	1735	1914	2092	0.04
1	2271	2449	2628	2806	2985	3163	3342	3520	3699	3877	4056	4234	0.63
2	4515	4836	5156	5477	5797	6118	6438	6759	7079	7399	7720	8040	1.23
3	8361	8681	9002	9322	9643	9963	10284	10604	10925	11245	11566	11886	1.83
4	12257	12646	13036	13426	13815	14205	14595	14985	15374	15764	16154	16544	2.42
5	16933	17323	17713	18103	18492	18882	19272	19662	20051	20441	20831	21221	2.99
6	21627	22039	22451	22864	23276	23689	24101	24514	24926	25338	25751	26163	3.57
7	26576	26988	27400	27813	28225	28638	29050	29463	29875	30287	30700	31112	4.12
8	31518	31920	32323	32725	33128	33531	33933	34336	34739	35141	35544	35946	4.66
9	36349	36752	37154	37557	37959	38362	38765	39167	39570	39973	40375	40778	5.18
10	41150	41509	41869	42229	42589	42949	43309	43668	44028	44388	44748	45108	5.69
11	45467	45827	46187	46547	46907	47266	47626	47986	48346	48706	49066	49425	6.15
12	49735	50025	50314	50604	50894	51184	51474	51764	52053	52343	52633	52923	6.61
13	53213	53503	53792	54082	54372	54662	54952	55242	55531	55821	56111	56401	7.00
14	56630	56836	57042	57247	57453	57659	57864	58070	58276	58481	58687	58893	7.39
15	59098	59304	59510	59715	59921	60127	60333	60538	60744	60950	61155	61361	7.69

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 1 OF 4

12

WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	61521	61664	61806	61949	62091	62233	62376	62518	62661	62803	62946	63088	7.99
17	63231	63373	63516	63658	63801	63943	64086	64228	64371	64513	64656	64798	8.23
18	64921	65037	65153	65269	65384	65500	65616	65732	65847	65963	66079	66195	8.47
19	66311	66426	66542	66658	66774	66890	67005	67121	67237	67353	67468	67584	8.68
20	67698	67811	67923	68036	68149	68262	68375	68487	68600	68713	68826	68939	8.90
21	69051	69164	69277	69390	69503	69615	69728	69841	69954	70067	70179	70292	9.13
22	70410	70531	70651	70772	70892	71013	71133	71254	71374	71495	71615	71735	9.37
23	71856	71976	72097	72217	72338	72458	72579	72699	72819	72940	73060	73181	9.64
24	73310	73442	73574	73707	73839	73971	74103	74236	74368	74500	74632	74765	9.91
25	74897	75029	75162	75294	75426	75558	75691	75823	75955	76087	76220	76352	10.23
26	76494	76640	76785	76931	77077	77223	77368	77514	77660	77805	77951	78097	10.54
27	78243	78388	78534	78680	78826	78971	79117	79263	79408	79554	79700	79846	10.90
28	80002	80162	80322	80482	80642	80803	80963	81123	81283	81443	81603	81764	11.27
29	81924	82084	82244	82404	82565	82725	82885	83045	83205	83365	83526	83686	11.68
30	83857	84033	84209	84384	84560	84736	84912	85087	85263	85439	85615	85790	12.09
31	85966	86142	86318	86493	86669	86845	87020	87196	87372	87548	87723	87899	12.54

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	88088	88281	88474	88667	88860	89054	89247	89440	89633	89827	90020	90213	13.00
33	90406	90599	90793	90986	91179	91372	91566	91759	91952	92145	92339	92532	13.50
34	92739	92951	93163	93375	93587	93799	94011	94223	94435	94647	94859	95071	14.00
35	95283	95495	95708	95920	96132	96344	96556	96768	96980	97192	97404	97616	14.55
36	97843	98076	98308	98541	98774	99007	99239	99472	99705	99937	100170	100403	15.10
37	100635	100868	101101	101333	101566	101799	102032	102264	102497	102730	102962	103195	15.70
38	103444	103699	103954	104210	104465	104720	104975	105231	105486	105741	105996	106252	16.29
39	106507	106762	107017	107273	107528	107783	108038	108294	108549	108804	109059	109315	16.93
40	109533	109738	109943	110147	110352	110556	110761	110966	111170	111375	111579	111784	17.56
41	111989	112193	112398	112603	112807	113012	113216	113421	113626	113830	114035	114240	18.07
42	114461	114688	114916	115143	115371	115598	115826	116053	116281	116508	116736	116963	18.57
43	117191	117419	117646	117874	118101	118329	118556	118784	119011	119239	119466	119694	19.13
44	119935	120182	120429	120675	120922	121169	121415	121662	121909	122155	122402	122649	19.69
45	122895	123142	123389	123635	123882	124129	124375	124622	124869	125116	125362	125609	20.29
46	125870	126138	126405	126672	126939	127207	127474	127741	128008	128276	128543	128810	20.89
47	129077	129345	129612	129879	130146	130414	130681	130948	131215	131483	131750	132017	21.52

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	132301	132592	132883	133174	133465	133756	134047	134338	134629	134920	135211	135502	22.16
49	135793	136084	136375	136666	136957	137248	137539	137829	138120	138411	138702	138993	22.84

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.49	1.17	1.85	2.54	3.22	3.90	4.58	5.26	5.95	6.63	7.31	7.99	0.04
1	8.67	9.35	10.04	10.72	11.40	12.08	12.76	13.45	14.13	14.81	15.49	16.17	0.63
2	17.24	18.47	19.69	20.92	22.14	23.36	24.59	25.81	27.04	28.26	29.48	30.71	1.23
3	31.93	33.16	34.38	35.60	36.83	38.05	39.28	40.50	41.72	42.95	44.17	45.40	1.83
4	46.81	48.30	49.79	51.28	52.76	54.25	55.74	57.23	58.72	60.21	61.70	63.18	2.42
5	64.67	66.16	67.65	69.14	70.63	72.11	73.60	75.09	76.58	78.07	79.56	81.05	2.99
6	82.60	84.17	85.75	87.32	88.90	90.47	92.05	93.62	95.20	96.77	98.35	99.92	3.57
7	101.50	103.07	104.65	106.22	107.80	109.37	110.95	112.52	114.10	115.67	117.25	118.82	4.12
8	120.37	121.91	123.45	124.98	126.52	128.06	129.60	131.14	132.67	134.21	135.75	137.29	4.66
9	138.82	140.36	141.90	143.44	144.97	146.51	148.05	149.59	151.13	152.66	154.20	155.74	5.18
10	157.16	158.53	159.91	161.28	162.66	164.03	165.40	166.78	168.15	169.53	170.90	172.27	5.69
11	173.65	175.02	176.40	177.77	179.15	180.52	181.89	183.27	184.64	186.02	187.39	188.77	6.15
12	189.95	191.05	192.16	193.27	194.37	195.48	196.59	197.70	198.80	199.91	201.02	202.12	6.61
13	203.23	204.34	205.44	206.55	207.66	208.76	209.87	210.98	212.09	213.19	214.30	215.41	7.00
14	216.28	217.07	217.85	218.64	219.42	220.21	221.00	221.78	222.57	223.35	224.14	224.92	7.39
15	225.71	226.49	227.28	228.07	228.85	229.64	230.42	231.21	231.99	232.78	233.56	234.35	7.69

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 1 OF 4

16

WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	234.96	235.51	236.05	236.59	237.14	237.68	238.23	238.77	239.31	239.86	240.40	240.95	7.99
17	241.49	242.04	242.58	243.12	243.67	244.21	244.76	245.30	245.84	246.39	246.93	247.48	8.23
18	247.95	248.39	248.83	249.27	249.72	250.16	250.60	251.04	251.48	251.93	252.37	252.81	8.47
19	253.25	253.70	254.14	254.58	255.02	255.46	255.91	256.35	256.79	257.23	257.68	258.12	8.68
20	258.55	258.98	259.41	259.84	260.27	260.71	261.14	261.57	262.00	262.43	262.86	263.29	8.90
21	263.72	264.15	264.58	265.01	265.44	265.87	266.31	266.74	267.17	267.60	268.03	268.46	9.13
22	268.91	269.37	269.83	270.29	270.75	271.21	271.67	272.13	272.59	273.05	273.51	273.97	9.37
23	274.43	274.89	275.35	275.81	276.27	276.73	277.19	277.65	278.11	278.57	279.03	279.49	9.64
24	279.98	280.49	280.99	281.50	282.01	282.51	283.02	283.52	284.03	284.53	285.04	285.54	9.91
25	286.05	286.55	287.06	287.56	288.07	288.57	289.08	289.58	290.09	290.59	291.10	291.60	10.23
26	292.15	292.70	293.26	293.82	294.37	294.93	295.48	296.04	296.60	297.15	297.71	298.27	10.54
27	298.82	299.38	299.94	300.49	301.05	301.61	302.16	302.72	303.28	303.83	304.39	304.95	10.90
28	305.54	306.15	306.77	307.38	307.99	308.60	309.21	309.82	310.44	311.05	311.66	312.27	11.27
29	312.88	313.49	314.11	314.72	315.33	315.94	316.55	317.17	317.78	318.39	319.00	319.61	11.68
30	320.27	320.94	321.61	322.28	322.95	323.62	324.29	324.97	325.64	326.31	326.98	327.65	12.09
31	328.32	328.99	329.66	330.33	331.01	331.68	332.35	333.02	333.69	334.36	335.03	335.70	12.54

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 2 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.3

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	336.42	337.16	337.90	338.64	339.38	340.11	340.85	341.59	342.33	343.07	343.80	344.54	13.00
33	345.28	346.02	346.76	347.49	348.23	348.97	349.71	350.45	351.18	351.92	352.66	353.40	13.50
34	354.19	355.00	355.81	356.62	357.43	358.24	359.05	359.86	360.67	361.48	362.29	363.10	14.00
35	363.91	364.72	365.53	366.34	367.15	367.96	368.77	369.58	370.39	371.20	372.01	372.82	14.55
36	373.68	374.57	375.46	376.35	377.24	378.13	379.01	379.90	380.79	381.68	382.57	383.46	15.10
37	384.35	385.24	386.12	387.01	387.90	388.79	389.68	390.57	391.46	392.34	393.23	394.12	15.70
38	395.07	396.05	397.02	398.00	398.97	399.95	400.92	401.90	402.87	403.85	404.82	405.80	16.29
39	406.77	407.75	408.72	409.70	410.67	411.64	412.62	413.59	414.57	415.54	416.52	417.49	16.93
40	418.33	419.11	419.89	420.67	421.46	422.24	423.02	423.80	424.58	425.36	426.14	426.93	17.56
41	427.71	428.49	429.27	430.05	430.83	431.61	432.40	433.18	433.96	434.74	435.52	436.30	18.07
42	437.15	438.02	438.89	439.75	440.62	441.49	442.36	443.23	444.10	444.97	445.84	446.71	18.57
43	447.58	448.44	449.31	450.18	451.05	451.92	452.79	453.66	454.53	455.40	456.27	457.13	19.13
44	458.06	459.00	459.94	460.88	461.82	462.77	463.71	464.65	465.59	466.54	467.48	468.42	19.69
45	469.36	470.30	471.25	472.19	473.13	474.07	475.01	475.96	476.90	477.84	478.78	479.73	20.29
46	480.72	481.74	482.77	483.79	484.81	485.83	486.85	487.87	488.89	489.91	490.93	491.95	20.89
47	492.97	493.99	495.01	496.03	497.05	498.07	499.10	500.12	501.14	502.16	503.18	504.20	21.52

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 3 OF 4

18

WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	505.29	506.40	507.51	508.62	509.73	510.84	511.95	513.06	514.17	515.29	516.40	517.51	22.16
49	518.62	519.73	520.84	521.95	523.06	524.18	525.29	526.40	527.51	528.62	529.73	530.84	22.84

TANK 100 PERCENT FULL SOUNDING = 49 FT. 11 2/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	120	277	435	593	751	909	1066	1224	1382	1540	1698	1856	0.03
1	2013	2171	2329	2487	2645	2802	2960	3118	3276	3434	3592	3749	0.59
2	4023	4334	4645	4956	5267	5578	5888	6199	6510	6821	7132	7443	1.14
3	7754	8065	8375	8686	8997	9308	9619	9930	10241	10552	10863	11173	1.73
4	11541	11926	12311	12697	13082	13467	13853	14238	14623	15008	15394	15779	2.32
5	16164	16550	16935	17320	17706	18091	18476	18862	19247	19632	20018	20403	2.90
6	20808	21219	21630	22042	22453	22864	23275	23687	24098	24509	24920	25332	3.47
7	25743	26154	26565	26977	27388	27799	28210	28622	29033	29444	29855	30267	4.02
8	30673	31078	31483	31888	32293	32698	33102	33507	33912	34317	34722	35127	4.57
9	35532	35937	36342	36746	37151	37556	37961	38366	38771	39176	39581	39986	5.09
10	40361	40727	41092	41458	41824	42190	42556	42922	43287	43653	44019	44385	5.61
11	44751	45117	45482	45848	46214	46580	46946	47311	47677	48043	48409	48775	6.08
12	49089	49386	49684	49982	50279	50577	50874	51172	51469	51767	52065	52362	6.54
13	52660	52957	53255	53552	53850	54147	54445	54743	55040	55338	55635	55933	6.94
14	56167	56382	56596	56811	57025	57239	57454	57668	57883	58097	58312	58526	7.34
15	58740	58955	59169	59384	59598	59812	60027	60241	60456	60670	60884	61099	7.65

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	61263	61410	61557	61705	61852	62000	62147	62295	62442	62589	62737	62884	7.96
17	63032	63179	63327	63474	63621	63769	63916	64064	64211	64359	64506	64653	8.20
18	64778	64895	65012	65129	65246	65363	65480	65597	65714	65831	65948	66065	8.45
19	66182	66299	66416	66533	66650	66767	66885	67002	67119	67236	67353	67470	8.66
20	67584	67696	67809	67922	68035	68148	68260	68373	68486	68599	68712	68824	8.88
21	68937	69050	69163	69276	69388	69501	69614	69727	69840	69952	70065	70178	9.11
22	70296	70416	70536	70656	70776	70896	71016	71136	71256	71376	71496	71616	9.35
23	71736	71856	71976	72097	72217	72337	72457	72577	72697	72817	72937	73057	9.62
24	73185	73317	73449	73581	73712	73844	73976	74107	74239	74371	74502	74634	9.89
25	74766	74898	75029	75161	75293	75424	75556	75688	75819	75951	76083	76214	10.20
26	76356	76501	76646	76791	76937	77082	77227	77372	77517	77662	77807	77952	10.51
27	78097	78242	78387	78532	78677	78822	78967	79112	79257	79402	79547	79692	10.87
28	79848	80008	80167	80327	80486	80646	80805	80965	81124	81283	81443	81602	11.24
29	81762	81921	82081	82240	82400	82559	82719	82878	83038	83197	83356	83516	11.64
30	83687	83862	84037	84212	84387	84562	84737	84912	85087	85262	85436	85611	12.05
31	85786	85961	86136	86311	86486	86661	86836	87011	87186	87361	87536	87711	12.50

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	87899	88091	88283	88476	88668	88860	89052	89245	89437	89629	89822	90014	12.96
33	90206	90398	90591	90783	90975	91168	91360	91552	91744	91937	92129	92321	13.46
34	92528	92739	92950	93161	93372	93583	93794	94005	94216	94427	94638	94849	13.96
35	95060	95271	95482	95693	95905	96116	96327	96538	96749	96960	97171	97382	14.51
36	97608	97840	98071	98303	98535	98766	98998	99229	99461	99692	99924	100155	15.05
37	100387	100618	100850	101081	101313	101544	101776	102007	102239	102470	102702	102933	15.64
38	103182	103436	103690	103944	104198	104452	104706	104960	105214	105467	105721	105975	16.24
39	106229	106483	106737	106991	107245	107499	107753	108007	108261	108515	108769	109023	16.87
40	109240	109445	109650	109855	110060	110265	110470	110675	110880	111085	111290	111496	17.50
41	111701	111906	112111	112316	112521	112726	112931	113136	113341	113546	113751	113957	18.01
42	114178	114404	114630	114856	115083	115309	115535	115761	115988	116214	116440	116666	18.51
43	116893	117119	117345	117571	117798	118024	118250	118476	118703	118929	119155	119381	19.07
44	119622	119867	120112	120357	120601	120846	121091	121336	121581	121826	122071	122316	19.63
45	122561	122806	123051	123296	123541	123786	124031	124276	124520	124765	125010	125255	20.22
46	125516	125781	126047	126312	126578	126843	127109	127374	127640	127905	128171	128436	20.82
47	128702	128967	129233	129498	129764	130029	130295	130560	130826	131091	131357	131622	21.45

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	131884	132144	132405	132665	132926	133186	133447	133707	133968	134228	134489	134749	22.08
49	135010	135270	135530	135791	136051	136312	136572	136833	137093	137354	137614	137875	22.68
50	138135	138396	138656	138917									23.29

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 4 OF 4

23

WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.46	1.06	1.66	2.26	2.87	3.47	4.07	4.68	5.28	5.88	6.48	7.09	0.03
1	7.69	8.29	8.89	9.50	10.10	10.70	11.31	11.91	12.51	13.11	13.72	14.32	0.59
2	15.37	16.55	17.74	18.93	20.11	21.30	22.49	23.68	24.86	26.05	27.24	28.43	1.14
3	29.61	30.80	31.99	33.17	34.36	35.55	36.74	37.92	39.11	40.30	41.49	42.67	1.73
4	44.08	45.55	47.02	48.49	49.96	51.43	52.91	54.38	55.85	57.32	58.79	60.26	2.32
5	61.74	63.21	64.68	66.15	67.62	69.09	70.56	72.04	73.51	74.98	76.45	77.92	2.90
6	79.47	81.04	82.61	84.18	85.75	87.32	88.89	90.46	92.03	93.61	95.18	96.75	3.47
7	98.32	99.89	101.46	103.03	104.60	106.17	107.74	109.31	110.88	112.45	114.02	115.59	4.02
8	117.15	118.69	120.24	121.79	123.33	124.88	126.42	127.97	129.52	131.06	132.61	134.16	4.57
9	135.70	137.25	138.80	140.34	141.89	143.43	144.98	146.53	148.07	149.62	151.17	152.71	5.09
10	154.15	155.54	156.94	158.34	159.73	161.13	162.53	163.93	165.32	166.72	168.12	169.51	5.61
11	170.91	172.31	173.71	175.10	176.50	177.90	179.29	180.69	182.09	183.49	184.88	186.28	6.08
12	187.48	188.62	189.75	190.89	192.03	193.16	194.30	195.44	196.57	197.71	198.84	199.98	6.54
13	201.12	202.25	203.39	204.53	205.66	206.80	207.94	209.07	210.21	211.35	212.48	213.62	6.94
14	214.51	215.33	216.15	216.97	217.79	218.61	219.43	220.25	221.07	221.88	222.70	223.52	7.34
15	224.34	225.16	225.98	226.80	227.62	228.44	229.25	230.07	230.89	231.71	232.53	233.35	7.65

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	233.97	234.54	235.10	235.66	236.23	236.79	237.35	237.92	238.48	239.04	239.60	240.17	7.96
17	240.73	241.29	241.86	242.42	242.98	243.55	244.11	244.67	245.24	245.80	246.36	246.92	8.20
18	247.40	247.85	248.29	248.74	249.19	249.63	250.08	250.53	250.98	251.42	251.87	252.32	8.45
19	252.76	253.21	253.66	254.10	254.55	255.00	255.45	255.89	256.34	256.79	257.23	257.68	8.66
20	258.11	258.55	258.98	259.41	259.84	260.27	260.70	261.13	261.56	261.99	262.42	262.85	8.88
21	263.28	263.72	264.15	264.58	265.01	265.44	265.87	266.30	266.73	267.16	267.59	268.02	9.11
22	268.48	268.93	269.39	269.85	270.31	270.77	271.23	271.68	272.14	272.60	273.06	273.52	9.35
23	273.98	274.43	274.89	275.35	275.81	276.27	276.73	277.18	277.64	278.10	278.56	279.02	9.62
24	279.51	280.01	280.52	281.02	281.52	282.02	282.53	283.03	283.53	284.04	284.54	285.04	9.89
25	285.55	286.05	286.55	287.05	287.56	288.06	288.56	289.07	289.57	290.07	290.58	291.08	10.20
26	291.62	292.17	292.73	293.28	293.84	294.39	294.94	295.50	296.05	296.61	297.16	297.71	10.51
27	298.27	298.82	299.38	299.93	300.48	301.04	301.59	302.15	302.70	303.25	303.81	304.36	10.87
28	304.96	305.57	306.17	306.78	307.39	308.00	308.61	309.22	309.83	310.44	311.05	311.66	11.24
29	312.26	312.87	313.48	314.09	314.70	315.31	315.92	316.53	317.14	317.75	318.35	318.96	11.64
30	319.62	320.29	320.95	321.62	322.29	322.96	323.63	324.29	324.96	325.63	326.30	326.97	12.05
31	327.64	328.30	328.97	329.64	330.31	330.98	331.64	332.31	332.98	333.65	334.32	334.98	12.50

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000

SHEET 2 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.4

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	335.70	336.44	337.17	337.91	338.64	339.37	340.11	340.84	341.58	342.31	343.05	343.78	12.96
33	344.51	345.25	345.98	346.72	347.45	348.19	348.92	349.66	350.39	351.12	351.86	352.59	13.46
34	353.38	354.19	354.99	355.80	356.61	357.41	358.22	359.02	359.83	360.64	361.44	362.25	13.96
35	363.05	363.86	364.67	365.47	366.28	367.08	367.89	368.70	369.50	370.31	371.11	371.92	14.51
36	372.79	373.67	374.55	375.44	376.32	377.21	378.09	378.98	379.86	380.74	381.63	382.51	15.05
37	383.40	384.28	385.17	386.05	386.93	387.82	388.70	389.59	390.47	391.35	392.24	393.12	15.64
38	394.07	395.04	396.01	396.98	397.95	398.92	399.89	400.86	401.83	402.80	403.77	404.74	16.24
39	405.71	406.68	407.65	408.62	409.59	410.56	411.53	412.50	413.47	414.44	415.41	416.38	16.87
40	417.21	417.99	418.77	419.56	420.34	421.12	421.91	422.69	423.47	424.26	425.04	425.82	17.50
41	426.61	427.39	428.17	428.96	429.74	430.52	431.31	432.09	432.87	433.66	434.44	435.22	18.01
42	436.07	436.93	437.80	438.66	439.52	440.39	441.25	442.12	442.98	443.84	444.71	445.57	18.51
43	446.44	447.30	448.16	449.03	449.89	450.76	451.62	452.48	453.35	454.21	455.08	455.94	19.07
44	456.86	457.79	458.73	459.67	460.60	461.54	462.47	463.41	464.34	465.28	466.21	467.15	19.63
45	468.08	469.02	469.96	470.89	471.83	472.76	473.70	474.63	475.57	476.50	477.44	478.37	20.22
46	479.37	480.38	481.40	482.41	483.43	484.44	485.45	486.47	487.48	488.50	489.51	490.52	20.82
47	491.54	492.55	493.57	494.58	495.59	496.61	497.62	498.64	499.65	500.66	501.66	502.69	21.45

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	503.69	504.69	505.68	506.68	507.67	508.66	509.66	510.65	511.65	512.64	513.64	514.63	22.08
49	515.63	516.62	517.62	518.61	519.61	520.60	521.60	522.59	523.59	524.58	525.58	526.57	22.68
50	527.57	528.56	529.56	530.55									23.29

TANK 100 PERCENT FULL SOUNDING = 50 FT. 3 4/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	110	249	388	527	666	805	944	1083	1221	1360	1499	1638	0.03
1	1777	1916	2055	2194	2332	2471	2610	2749	2888	3027	3166	3305	0.55
2	3572	3873	4173	4474	4774	5075	5375	5676	5976	6277	6578	6878	1.07
3	7179	7479	7780	8080	8381	8681	8982	9283	9583	9884	10184	10485	1.65
4	10848	11228	11608	11988	12368	12748	13128	13508	13888	14268	14647	15027	2.23
5	15407	15787	16167	16547	16927	17307	17687	18067	18447	18826	19206	19586	2.81
6	19990	20400	20810	21220	21630	22040	22450	22860	23270	23680	24090	24500	3.38
7	24910	25320	25730	26140	26550	26961	27371	27781	28191	28601	29011	29421	3.93
8	29828	30235	30642	31048	31455	31862	32269	32675	33082	33489	33896	34302	4.48
9	34709	35116	35523	35929	36336	36743	37150	37556	37963	38370	38777	39183	5.01
10	39562	39933	40304	40676	41047	41418	41789	42161	42532	42903	43274	43646	5.52
11	44017	44388	44759	45131	45502	45873	46244	46616	46987	47358	47729	48101	6.00
12	48419	48725	49030	49335	49640	49945	50251	50556	50861	51166	51471	51777	6.47
13	52082	52387	52692	52998	53303	53608	53913	54218	54524	54829	55134	55439	6.88
14	55679	55903	56126	56349	56573	56796	57019	57243	57466	57689	57913	58136	7.28
15	58359	58583	58806	59029	59253	59476	59699	59923	60146	60369	60593	60816	7.61

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	60983	61136	61289	61441	61594	61747	61900	62052	62205	62358	62510	62663	7.93
17	62816	62969	63121	63274	63427	63579	63732	63885	64037	64190	64343	64496	8.17
18	64621	64740	64859	64978	65097	65215	65334	65453	65572	65691	65809	65928	8.42
19	66047	66166	66285	66403	66522	66641	66760	66879	66997	67116	67235	67354	8.64
20	67468	67581	67694	67806	67919	68032	68145	68258	68371	68484	68597	68710	8.86
21	68823	68935	69048	69161	69274	69387	69500	69613	69726	69839	69951	70064	9.09
22	70183	70302	70422	70541	70661	70781	70900	71020	71139	71259	71378	71498	9.33
23	71618	71737	71857	71976	72096	72216	72335	72455	72574	72694	72814	72933	9.59
24	73062	73193	73324	73455	73586	73718	73849	73980	74111	74242	74373	74504	9.86
25	74636	74767	74898	75029	75160	75291	75422	75553	75685	75816	75947	76078	10.17
26	76220	76364	76508	76653	76797	76941	77086	77230	77375	77519	77663	77808	10.49
27	77952	78096	78241	78385	78530	78674	78818	78963	79107	79251	79396	79540	10.84
28	79696	79855	80013	80172	80331	80490	80649	80807	80966	81125	81284	81442	11.20
29	81601	81760	81919	82077	82236	82395	82554	82712	82871	83030	83189	83347	11.61
30	83518	83692	83867	84041	84215	84389	84563	84737	84911	85086	85260	85434	12.01
31	85608	85782	85956	86130	86304	86479	86653	86827	87001	87175	87349	87523	12.46

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	87711	87903	88094	88285	88477	88668	88859	89051	89242	89433	89625	89816	12.92
33	90008	90199	90390	90582	90773	90964	91156	91347	91538	91730	91921	92113	13.41
34	92319	92529	92739	92949	93159	93369	93579	93789	93999	94209	94419	94629	13.91
35	94839	95049	95259	95469	95679	95889	96099	96309	96519	96729	96939	97149	14.46
36	97376	97606	97836	98067	98297	98527	98758	98988	99219	99449	99679	99910	15.00
37	100140	100370	100601	100831	101062	101292	101522	101753	101983	102213	102444	102674	15.59
38	102922	103175	103428	103680	103933	104186	104438	104691	104944	105196	105449	105702	16.18
39	105954	106207	106460	106712	106965	107217	107470	107723	107975	108228	108481	108733	16.82
40	108949	109154	109360	109565	109771	109976	110182	110388	110593	110799	111004	111210	17.44
41	111415	111621	111826	112032	112238	112443	112649	112854	113060	113265	113471	113677	17.95
42	113898	114122	114347	114572	114797	115022	115247	115472	115697	115922	116147	116372	18.46
43	116597	116822	117047	117272	117497	117722	117947	118172	118397	118622	118847	119072	19.01
44	119311	119554	119797	120041	120284	120527	120770	121014	121257	121500	121743	121987	19.56
45	122230	122473	122716	122960	123203	123446	123689	123932	124176	124419	124662	124905	20.15
46	125165	125429	125693	125956	126220	126484	126748	127011	127275	127539	127803	128067	20.75
47	128330	128594	128858	129122	129385	129649	129913	130177	130441	130704	130968	131232	21.38

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	131475	131713	131951	132189	132427	132665	132903	133141	133379	133617	133855	134093	22.00
49	134331	134569	134807	135045	135283	135521	135759	135997	136235	136473	136711	136949	22.55
50	137187	137425	137663	137901	138139	138377	138615	138853					23.11

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 139074.75 GALLONS VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.42	0.95	1.48	2.01	2.54	3.07	3.60	4.13	4.67	5.20	5.73	6.26	0.03
1	6.79	7.32	7.85	8.38	8.91	9.44	9.97	10.50	11.03	11.56	12.09	12.62	0.55
2	13.64	14.79	15.94	17.09	18.23	19.38	20.53	21.68	22.83	23.97	25.12	26.27	1.07
3	27.42	28.56	29.71	30.86	32.01	33.16	34.30	35.45	36.60	37.75	38.90	40.04	1.65
4	41.43	42.88	44.33	45.78	47.24	48.69	50.14	51.59	53.04	54.49	55.94	57.39	2.23
5	58.84	60.29	61.75	63.20	64.65	66.10	67.55	69.00	70.45	71.90	73.35	74.80	2.81
6	76.35	77.91	79.48	81.04	82.61	84.18	85.74	87.31	88.87	90.44	92.01	93.57	3.38
7	95.14	96.70	98.27	99.84	101.40	102.97	104.53	106.10	107.67	109.23	110.80	112.36	3.93
8	113.92	115.47	117.03	118.58	120.13	121.69	123.24	124.79	126.35	127.90	129.45	131.01	4.48
9	132.56	134.11	135.67	137.22	138.77	140.33	141.88	143.44	144.99	146.54	148.10	149.65	5.01
10	151.09	152.51	153.93	155.35	156.77	158.18	159.60	161.02	162.44	163.86	165.27	166.69	5.52
11	168.11	169.53	170.94	172.36	173.78	175.20	176.62	178.03	179.45	180.87	182.29	183.71	6.00
12	184.92	186.09	187.25	188.42	189.59	190.75	191.92	193.08	194.25	195.41	196.58	197.75	6.47
13	198.91	200.08	201.24	202.41	203.57	204.74	205.91	207.07	208.24	209.40	210.57	211.73	6.88
14	212.65	213.50	214.36	215.21	216.06	216.92	217.77	218.62	219.47	220.33	221.18	222.03	7.28
15	222.89	223.74	224.59	225.45	226.30	227.15	228.00	228.86	229.71	230.56	231.42	232.27	7.61

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	232.91	233.49	234.07	234.66	235.24	235.82	236.41	236.99	237.57	238.16	238.74	239.32	7.93
17	239.91	240.49	241.07	241.66	242.24	242.82	243.41	243.99	244.57	245.16	245.74	246.32	8.17
18	246.80	247.26	247.71	248.16	248.62	249.07	249.52	249.98	250.43	250.89	251.34	251.79	8.42
19	252.25	252.70	253.15	253.61	254.06	254.51	254.97	255.42	255.88	256.33	256.78	257.24	8.64
20	257.67	258.10	258.54	258.97	259.40	259.83	260.26	260.69	261.12	261.55	261.98	262.42	8.86
21	262.85	263.28	263.71	264.14	264.57	265.00	265.43	265.86	266.30	266.73	267.16	267.59	9.09
22	268.04	268.50	268.95	269.41	269.87	270.32	270.78	271.24	271.70	272.15	272.61	273.07	9.33
23	273.52	273.98	274.44	274.89	275.35	275.81	276.26	276.72	277.18	277.63	278.09	278.55	9.59
24	279.04	279.54	280.04	280.54	281.04	281.54	282.04	282.54	283.04	283.55	284.05	284.55	9.86
25	285.05	285.55	286.05	286.55	287.05	287.55	288.05	288.55	289.05	289.56	290.06	290.56	10.17
26	291.10	291.65	292.20	292.75	293.30	293.85	294.41	294.96	295.51	296.06	296.61	297.16	10.49
27	297.71	298.27	298.82	299.37	299.92	300.47	301.02	301.57	302.13	302.68	303.23	303.78	10.84
28	304.37	304.98	305.59	306.19	306.80	307.41	308.01	308.62	309.23	309.83	310.44	311.04	11.20
29	311.65	312.26	312.86	313.47	314.08	314.68	315.29	315.89	316.50	317.11	317.71	318.32	11.61
30	318.97	319.64	320.30	320.97	321.63	322.30	322.96	323.63	324.29	324.96	325.62	326.29	12.01
31	326.95	327.62	328.28	328.95	329.61	330.28	330.94	331.61	332.27	332.94	333.60	334.27	12.46

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 5

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	334.99	335.72	336.45	337.18	337.91	338.64	339.37	340.10	340.83	341.56	342.29	343.03	12.92
33	343.76	344.49	345.22	345.95	346.68	347.41	348.14	348.87	349.60	350.33	351.07	351.80	13.41
34	352.58	353.39	354.19	354.99	355.79	356.59	357.40	358.20	359.00	359.80	360.60	361.41	13.91
35	362.21	363.01	363.81	364.62	365.42	366.22	367.02	367.82	368.63	369.43	370.23	371.03	14.46
36	371.90	372.78	373.66	374.54	375.42	376.30	377.18	378.06	378.94	379.82	380.70	381.57	15.00
37	382.45	383.33	384.21	385.09	385.97	386.85	387.73	388.61	389.49	390.37	391.25	392.13	15.59
38	393.08	394.05	395.01	395.98	396.94	397.91	398.87	399.84	400.80	401.77	402.73	403.70	16.18
39	404.66	405.63	406.59	407.55	408.52	409.48	410.45	411.41	412.38	413.34	414.31	415.27	16.82
40	416.10	416.88	417.67	418.45	419.24	420.02	420.81	421.59	422.38	423.16	423.95	424.73	17.44
41	425.52	426.30	427.09	427.87	428.66	429.44	430.23	431.01	431.80	432.58	433.37	434.15	17.95
42	435.00	435.86	436.72	437.57	438.43	439.29	440.15	441.01	441.87	442.73	443.59	444.45	18.46
43	445.31	446.17	447.03	447.88	448.74	449.60	450.46	451.32	452.18	453.04	453.90	454.76	19.01
44	455.67	456.60	457.53	458.46	459.39	460.32	461.25	462.18	463.10	464.03	464.96	465.89	19.56
45	466.82	467.75	468.68	469.61	470.54	471.46	472.39	473.32	474.25	475.18	476.11	477.04	20.15
46	478.03	479.04	480.04	481.05	482.06	483.07	484.07	485.08	486.09	487.10	488.10	489.11	20.75
47	490.12	491.13	492.13	493.14	494.15	495.16	496.16	497.17	498.18	499.19	500.19	501.20	21.38

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FOREPEAK SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR -8-21 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	502.13	503.04	503.95	504.86	505.77	506.67	507.58	508.49	509.40	510.31	511.22	512.13	22.00
49	513.04	513.95	514.85	515.76	516.67	517.58	518.49	519.40	520.31	521.22	522.13	523.03	22.55
50	523.94	524.85	525.76	526.67	527.58	528.49	529.40	530.31					23.11

TANK 100 PERCENT FULL SOUNDING = 50 FT. 7 7/8 IN CAP. = 531.15 S.W.LTON VCG = 23.47 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.066 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	270	521	772	1023	1274	1525	1776	2027	2278	2529	2780	3031	0.05
1	3282	3533	3784	4035	4286	4537	4788	5039	5290	5541	5792	6043	0.55
2	6294	6545	6817	7187	7557	7927	8298	8668	9038	9408	9778	10148	1.05
3	10518	10888	11258	11628	11998	12368	12738	13108	13479	13849	14219	14589	1.56
4	14959	15329	15699	16069	16439	16824	17249	17674	18099	18524	18949	19374	2.06
5	19799	20224	20649	21074	21499	21924	22349	22774	23199	23624	24049	24473	2.57
6	24898	25323	25748	26173	26598	27023	27448	27873	28308	28759	29210	29662	3.06
7	30113	30564	31016	31467	31918	32369	32821	33272	33723	34174	34626	35077	3.56
8	35528	35979	36431	36882	37310	37648	37985	38322	38660	38997	39334	39672	4.05
9	40009	40346	40683	41021	41358	41695	42032	42370	42707	43044	43382	43719	4.46
10	44056	44394	44731	45068	45405	45743	46080	46419	46762	47105	47447	47790	4.84
11	48133	48476	48819	49162	49504	49847	50190	50533	50876	51219	51561	51904	5.23
12	52247	52590	52933	53276	53618	53961	54304	54647	54990	55333	55676	56020	5.63
13	56363	56707	57051	57395	57739	58083	58427	58770	59114	59458	59802	60146	6.04
14	60490	60834	61177	61521	61865	62209	62553	62897	63240	63584	63928	64272	6.45
15	64616	64959	65303	65646	65989	66332	66676	67019	67362	67705	68049	68392	6.87

TANK 100 PERCENT FULL SOUNDING = 44 FT. 8 7/8 IN CAP. = 227659.13 GALLONS VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.080 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	68735	69078	69422	69765	70108	70451	70794	71138	71481	71824	72167	72511	7.29
17	72854	73197	73540	73884	74228	74575	74921	75267	75613	75959	76305	76651	7.72
18	76997	77343	77689	78035	78381	78727	79073	79419	79765	80111	80457	80803	8.15
19	81149	81495	81841	82187	82533	82879	83225	83578	83933	84288	84643	84998	8.58
20	85353	85708	86063	86418	86773	87128	87483	87838	88193	88548	88903	89258	9.02
21	89613	89969	90324	90679	91034	91389	91744	92099	92454	92809	93176	93546	9.46
22	93916	94286	94656	95025	95395	95765	96135	96505	96875	97245	97615	97985	9.91
23	98355	98725	99095	99465	99835	100205	100575	100944	101314	101684	102054	102424	10.37
24	102794	103181	103570	103959	104348	104737	105125	105514	105903	106292	106681	107070	10.83
25	107459	107848	108237	108626	109014	109403	109792	110181	110570	110959	111348	111737	11.32
26	112126	112514	112903	113292	113703	114114	114525	114936	115347	115758	116169	116579	11.80
27	116990	117401	117812	118223	118634	119045	119456	119867	120278	120689	121099	121510	12.29
28	121921	122332	122743	123154	123565	123976	124389	124825	125261	125696	126132	126568	12.79
29	127004	127439	127875	128311	128747	129182	129618	130054	130490	130926	131361	131797	13.30
30	132233	132669	133104	133540	133976	134412	134847	135283	135719	136160	136623	137086	13.82
31	137549	138013	138476	138939	139402	139865	140328	140791	141255	141718	142181	142644	14.34

TANK 100 PERCENT FULL SOUNDING = 44 FT. 8 7/8 IN CAP. = 227659.13 GALLONS VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.080 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	143107	143570	144033	144497	144960	145423	145886	146349	146812	147275	147739	148202	14.88
33	148673	149166	149658	150150	150642	151134	151627	152119	152611	153103	153595	154088	15.41
34	154580	155072	155564	156056	156549	157041	157533	158025	158517	159010	159502	159994	15.96
35	160486	160979	161471	161975	162498	163021	163544	164067	164590	165113	165635	166158	16.51
36	166681	167204	167727	168250	168773	169296	169819	170342	170865	171388	171911	172433	17.08
37	172956	173479	174002	174525	175048	175571	176110	176665	177219	177774	178329	178884	17.64
38	179439	179994	180549	181104	181658	182213	182768	183323	183878	184433	184988	185543	18.22
39	186098	186652	187207	187762	188317	188872	189427	189982	190537	191111	191699	192287	18.80
40	192874	193462	194050	194638	195226	195814	196401	196989	197577	198165	198753	199340	19.38
41	199928	200516	201104	201691	202279	202867	203455	204043	204631	205218	205806	206394	19.97
42	207006	207629	208251	208874	209496	210119	210742	211364	211987	212609	213232	213855	20.56
43	214477	215100	215723	216345	216968	217590	218213	218836	219458	220081	220704	221326	21.16
44	221949	222571	223194	223834	224479	225124	225769	226413	227058				21.77

TANK 100 PERCENT FULL SOUNDING = 44 FT. 8 7/8 IN CAP. = 227659.13 GALLONS VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.080 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.03	1.99	2.95	3.91	4.87	5.82	6.78	7.74	8.70	9.66	10.62	11.58	0.05
1	12.54	13.49	14.45	15.41	16.37	17.33	18.29	19.25	20.20	21.16	22.12	23.08	0.55
2	24.04	25.00	26.04	27.45	28.86	30.28	31.69	33.10	34.52	35.93	37.34	38.76	1.05
3	40.17	41.58	43.00	44.41	45.82	47.24	48.65	50.06	51.48	52.89	54.30	55.72	1.56
4	57.13	58.54	59.96	61.37	62.78	64.26	65.88	67.50	69.12	70.75	72.37	73.99	2.06
5	75.62	77.24	78.86	80.49	82.11	83.73	85.35	86.98	88.60	90.22	91.85	93.47	2.57
6	95.09	96.72	98.34	99.96	101.58	103.21	104.83	106.45	108.11	109.84	111.56	113.28	3.06
7	115.01	116.73	118.45	120.18	121.90	123.62	125.35	127.07	128.80	130.52	132.24	133.97	3.56
8	135.69	137.41	139.14	140.86	142.50	143.78	145.07	146.36	147.65	148.94	150.23	151.51	4.05
9	152.80	154.09	155.38	156.67	157.95	159.24	160.53	161.82	163.11	164.39	165.68	166.97	4.46
10	168.26	169.55	170.84	172.12	173.41	174.70	175.99	177.28	178.59	179.90	181.21	182.52	4.84
11	183.83	185.14	186.45	187.76	189.07	190.38	191.69	193.00	194.30	195.61	196.92	198.23	5.23
12	199.54	200.85	202.16	203.47	204.78	206.09	207.40	208.71	210.02	211.33	212.64	213.95	5.63
13	215.26	216.58	217.89	219.20	220.52	221.83	223.14	224.46	225.77	227.08	228.40	229.71	6.04
14	231.02	232.34	233.65	234.96	236.28	237.59	238.90	240.21	241.53	242.84	244.15	245.47	6.45
15	246.78	248.09	249.40	250.71	252.03	253.34	254.65	255.96	257.27	258.58	259.89	261.20	6.87

TANK 100 PERCENT FULL SOUNDING = 44 FT. 8 7/8 IN CAP. = 869.48 S.W.LTON VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.080 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	262.51	263.82	265.13	266.45	267.76	269.07	270.38	271.69	273.00	274.31	275.62	276.93	7.29
17	278.24	279.55	280.87	282.18	283.49	284.81	286.14	287.46	288.78	290.10	291.42	292.74	7.72
18	294.07	295.39	296.71	298.03	299.35	300.67	302.00	303.32	304.64	305.96	307.28	308.60	8.15
19	309.92	311.25	312.57	313.89	315.21	316.53	317.85	319.20	320.56	321.91	323.27	324.62	8.58
20	325.98	327.34	328.69	330.05	331.40	332.76	334.12	335.47	336.83	338.18	339.54	340.90	9.02
21	342.25	343.61	344.96	346.32	347.68	349.03	350.39	351.74	353.10	354.46	355.86	357.27	9.46
22	358.68	360.10	361.51	362.92	364.33	365.75	367.16	368.57	369.99	371.40	372.81	374.22	9.91
23	375.64	377.05	378.46	379.88	381.29	382.70	384.11	385.53	386.94	388.35	389.77	391.18	10.37
24	392.59	394.07	395.55	397.04	398.52	400.01	401.50	402.98	404.47	405.95	407.44	408.92	10.83
25	410.41	411.89	413.38	414.86	416.35	417.83	419.32	420.80	422.29	423.77	425.26	426.74	11.32
26	428.23	429.71	431.20	432.69	434.25	435.82	437.39	438.96	440.53	442.10	443.67	445.24	11.80
27	446.81	448.38	449.95	451.52	453.09	454.66	456.23	457.79	459.36	460.93	462.50	464.07	12.29
28	465.64	467.21	468.78	470.35	471.92	473.49	475.07	476.73	478.40	480.06	481.72	483.39	12.79
29	485.05	486.72	488.38	490.05	491.71	493.37	495.04	496.70	498.37	500.03	501.69	503.36	13.30
30	505.02	506.69	508.35	510.02	511.68	513.34	515.01	516.67	518.34	520.02	521.79	523.56	13.82
31	525.33	527.10	528.87	530.64	532.40	534.17	535.94	537.71	539.48	541.25	543.02	544.79	14.34

TANK 100 PERCENT FULL SOUNDING = 44 FT. 8 7/8 IN CAP. = 869.48 S.W.LTON VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.080 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	546.55	548.32	550.09	551.86	553.63	555.40	557.17	558.94	560.70	562.47	564.24	566.01	14.88
33	567.81	569.69	571.57	573.45	575.33	577.21	579.09	580.97	582.85	584.73	586.61	588.49	15.41
34	590.37	592.25	594.13	596.01	597.89	599.77	601.65	603.53	605.41	607.29	609.17	611.05	15.96
35	612.93	614.81	616.69	618.61	620.61	622.61	624.61	626.60	628.60	630.60	632.59	634.59	16.51
36	636.59	638.59	640.58	642.58	644.58	646.57	648.57	650.57	652.57	654.56	656.56	658.56	17.08
37	660.55	662.55	664.55	666.55	668.54	670.54	672.60	674.72	676.84	678.96	681.07	683.19	17.64
38	685.31	687.43	689.55	691.67	693.79	695.91	698.03	700.15	702.27	704.39	706.51	708.62	18.22
39	710.74	712.86	714.98	717.10	719.22	721.34	723.46	725.58	727.70	729.89	732.14	734.38	18.80
40	736.63	738.87	741.12	743.36	745.61	747.85	750.10	752.34	754.59	756.83	759.08	761.32	19.38
41	763.57	765.81	768.06	770.30	772.54	774.79	777.04	779.28	781.52	783.77	786.01	788.26	19.97
42	790.60	792.97	795.35	797.73	800.11	802.49	804.86	807.24	809.62	812.00	814.38	816.75	20.56
43	819.13	821.51	823.89	826.27	828.64	831.02	833.40	835.78	838.16	840.53	842.91	845.29	21.16
44	847.67	850.04	852.42	854.87	857.33	859.79	862.26	864.72	867.18				21.77

TANK 100 PERCENT FULL SOUNDING = 44 FT. 8 7/8 IN CAP. = 869.48 S.W.LTON VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.080 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 3 OF 3

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.6

41

WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	262	488	714	940	1166	1392	1618	1844	2070	2296	2522	2748	0.05
1	2974	3200	3426	3652	3878	4104	4330	4556	4781	5007	5233	5459	0.51
2	5685	5911	6173	6537	6901	7265	7629	7993	8357	8721	9085	9449	0.98
3	9812	10176	10540	10904	11268	11632	11996	12360	12724	13088	13452	13816	1.48
4	14180	14544	14908	15271	15635	16020	16442	16864	17286	17708	18130	18552	1.98
5	18974	19396	19818	20240	20662	21083	21505	21927	22349	22771	23193	23615	2.48
6	24037	24459	24881	25303	25725	26147	26569	26991	27425	27875	28325	28775	2.98
7	29225	29675	30124	30574	31024	31474	31924	32374	32823	33273	33723	34173	3.48
8	34623	35072	35522	35972	36392	36736	37080	37425	37769	38113	38457	38802	3.97
9	39146	39490	39835	40179	40523	40867	41212	41556	41900	42244	42589	42933	4.39
10	43277	43621	43966	44310	44654	44999	45343	45687	46030	46373	46716	47059	4.77
11	47403	47746	48089	48432	48775	49118	49462	49805	50148	50491	50834	51178	5.16
12	51521	51864	52207	52550	52893	53237	53580	53923	54266	54609	54953	55298	5.56
13	55643	55987	56332	56677	57021	57366	57711	58055	58400	58745	59089	59434	5.97
14	59779	60123	60468	60813	61157	61502	61847	62192	62536	62881	63226	63570	6.38
15	63915	64259	64603	64947	65291	65635	65979	66323	66667	67011	67355	67699	6.80

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 1 1/8 IN   CAP. = 227659.13 GALLONS   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.086 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 1 OF 3

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WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	68043	68387	68731	69075	69419	69763	70107	70451	70795	71139	71483	71827	7.22
17	72171	72515	72860	73204	73549	73895	74241	74587	74934	75280	75626	75972	7.65
18	76318	76664	77010	77357	77703	78049	78395	78741	79087	79433	79780	80126	8.08
19	80472	80818	81164	81510	81857	82203	82549	82901	83256	83610	83964	84319	8.51
20	84673	85028	85382	85736	86091	86445	86799	87154	87508	87862	88217	88571	8.95
21	88925	89280	89634	89989	90343	90697	91052	91406	91760	92115	92482	92850	9.39
22	93219	93588	93956	94325	94694	95062	95431	95799	96168	96537	96905	97274	9.84
23	97643	98011	98380	98749	99117	99486	99855	100223	100592	100961	101329	101698	10.30
24	102066	102453	102841	103228	103615	104002	104389	104777	105164	105551	105938	106325	10.76
25	106713	107100	107487	107874	108261	108649	109036	109423	109810	110197	110585	110972	11.24
26	111359	111746	112134	112522	112931	113340	113749	114158	114567	114976	115385	115794	11.72
27	116203	116612	117021	117430	117838	118247	118656	119065	119474	119883	120292	120701	12.21
28	121110	121519	121928	122337	122746	123155	123568	124002	124435	124869	125302	125736	12.71
29	126169	126603	127036	127470	127903	128337	128770	129204	129637	130071	130505	130938	13.22
30	131372	131805	132239	132672	133106	133539	133973	134406	134840	135281	135742	136202	13.73
31	136663	137124	137585	138045	138506	138967	139428	139888	140349	140810	141270	141731	14.25

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 1 1/8 IN   CAP. = 227659.13 GALLONS   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.086 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 2 OF 3

43

WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	142192	142652	143113	143574	144035	144495	144956	145417	145877	146338	146799	147260	14.79
33	147731	148221	148711	149200	149690	150179	150669	151159	151648	152138	152628	153117	15.32
34	153607	154097	154586	155076	155566	156055	156545	157035	157524	158014	158504	158993	15.87
35	159483	159972	160462	160966	161487	162007	162527	163047	163567	164088	164608	165128	16.42
36	165648	166168	166689	167209	167729	168249	168769	169289	169810	170330	170850	171370	16.98
37	171890	172411	172931	173451	173971	174491	175030	175582	176134	176686	177238	177790	17.55
38	178342	178894	179447	179999	180551	181103	181655	182207	182759	183311	183863	184415	18.12
39	184967	185519	186071	186623	187175	187728	188280	188832	189384	189958	190543	191128	18.70
40	191713	192298	192883	193467	194052	194637	195222	195807	196392	196977	197562	198147	19.28
41	198731	199316	199901	200486	201071	201656	202241	202826	203410	203995	204580	205165	19.87
42	205777	206396	207016	207636	208255	208875	209494	210114	210733	211353	211972	212592	20.46
43	213211	213831	214450	215070	215689	216309	216928	217548	218168	218787	219407	220026	21.06
44	220646	221265	221885	222405	222912	223418	223925	224431	224938	225445	225968	226490	21.66
45	227013	227535											22.17

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 1 1/8 IN   CAP. = 227659.13 GALLONS   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.086 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 3 OF 3

44

WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.00	1.86	2.73	3.59	4.45	5.32	6.18	7.04	7.91	8.77	9.63	10.49	0.05
1	11.36	12.22	13.08	13.95	14.81	15.67	16.54	17.40	18.26	19.12	19.99	20.85	0.51
2	21.71	22.58	23.58	24.97	26.36	27.75	29.14	30.53	31.92	33.31	34.70	36.09	0.98
3	37.48	38.87	40.26	41.65	43.04	44.43	45.82	47.21	48.60	49.99	51.38	52.76	1.48
4	54.15	55.54	56.93	58.32	59.71	61.18	62.80	64.41	66.02	67.63	69.24	70.85	1.98
5	72.46	74.08	75.69	77.30	78.91	80.52	82.13	83.74	85.36	86.97	88.58	90.19	2.48
6	91.80	93.41	95.03	96.64	98.25	99.86	101.47	103.08	104.74	106.46	108.18	109.90	2.98
7	111.62	113.33	115.05	116.77	118.49	120.20	121.92	123.64	125.36	127.08	128.79	130.51	3.48
8	132.23	133.95	135.67	137.38	138.99	140.30	141.62	142.93	144.25	145.56	146.88	148.19	3.97
9	149.51	150.82	152.14	153.45	154.77	156.08	157.40	158.71	160.02	161.34	162.65	163.97	4.39
10	165.28	166.60	167.91	169.23	170.54	171.86	173.17	174.49	175.80	177.11	178.42	179.73	4.77
11	181.04	182.35	183.66	184.97	186.28	187.59	188.90	190.21	191.53	192.84	194.15	195.46	5.16
12	196.77	198.08	199.39	200.70	202.01	203.32	204.63	205.94	207.25	208.56	209.88	211.19	5.56
13	212.51	213.83	215.14	216.46	217.78	219.09	220.41	221.73	223.04	224.36	225.67	226.99	5.97
14	228.31	229.62	230.94	232.26	233.57	234.89	236.21	237.52	238.84	240.15	241.47	242.79	6.38
15	244.10	245.42	246.73	248.05	249.36	250.67	251.99	253.30	254.62	255.93	257.24	258.56	6.80

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 1 1/8 IN   CAP. = 869.48 S.W.LTON   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.086 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 1 OF 3

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WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	259.87	261.18	262.50	263.81	265.13	266.44	267.75	269.07	270.38	271.70	273.01	274.32	7.22
17	275.64	276.95	278.26	279.58	280.90	282.22	283.54	284.86	286.19	287.51	288.83	290.15	7.65
18	291.47	292.80	294.12	295.44	296.76	298.08	299.41	300.73	302.05	303.37	304.69	306.02	8.08
19	307.34	308.66	309.98	311.30	312.63	313.95	315.27	316.62	317.97	319.32	320.68	322.03	8.51
20	323.38	324.74	326.09	327.44	328.80	330.15	331.50	332.86	334.21	335.56	336.92	338.27	8.95
21	339.62	340.98	342.33	343.68	345.04	346.39	347.74	349.10	350.45	351.80	353.21	354.61	9.39
22	356.02	357.43	358.84	360.25	361.65	363.06	364.47	365.88	367.28	368.69	370.10	371.51	9.84
23	372.92	374.32	375.73	377.14	378.55	379.96	381.36	382.77	384.18	385.59	387.00	388.40	10.30
24	389.81	391.29	392.77	394.25	395.73	397.20	398.68	400.16	401.64	403.12	404.60	406.08	10.76
25	407.56	409.04	410.51	411.99	413.47	414.95	416.43	417.91	419.39	420.87	422.34	423.82	11.24
26	425.30	426.78	428.26	429.75	431.31	432.87	434.43	435.99	437.55	439.12	440.68	442.24	11.72
27	443.80	445.36	446.93	448.49	450.05	451.61	453.17	454.73	456.30	457.86	459.42	460.98	12.21
28	462.54	464.10	465.67	467.23	468.79	470.35	471.93	473.59	475.24	476.90	478.55	480.21	12.71
29	481.86	483.52	485.18	486.83	488.49	490.14	491.80	493.46	495.11	496.77	498.42	500.08	13.22
30	501.73	503.39	505.05	506.70	508.36	510.01	511.67	513.32	514.98	516.66	518.43	520.18	13.73
31	521.94	523.70	525.46	527.22	528.98	530.74	532.50	534.26	536.02	537.78	539.54	541.30	14.25

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 1 1/8 IN   CAP. = 869.48 S.W.LTON   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.086 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 2 OF 3

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WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	543.06	544.82	546.58	548.34	550.10	551.86	553.62	555.38	557.13	558.89	560.65	562.41	14.79
33	564.21	566.08	567.95	569.83	571.70	573.56	575.44	577.31	579.18	581.05	582.92	584.79	15.32
34	586.66	588.53	590.40	592.27	594.14	596.01	597.88	599.75	601.62	603.49	605.36	607.23	15.87
35	609.10	610.97	612.84	614.76	616.75	618.74	620.72	622.71	624.70	626.68	628.67	630.66	16.42
36	632.64	634.63	636.62	638.60	640.59	642.58	644.56	646.55	648.54	650.52	652.51	654.50	16.98
37	656.48	658.47	660.46	662.44	664.43	666.42	668.47	670.58	672.69	674.80	676.91	679.02	17.55
38	681.12	683.23	685.34	687.45	689.56	691.67	693.78	695.88	697.99	700.10	702.21	704.32	18.12
39	706.43	708.54	710.64	712.75	714.86	716.97	719.08	721.19	723.29	725.49	727.72	729.96	18.70
40	732.19	734.42	736.66	738.89	741.12	743.36	745.59	747.83	750.06	752.29	754.53	756.76	19.28
41	758.99	761.23	763.46	765.70	767.93	770.16	772.40	774.63	776.86	779.10	781.33	783.57	19.87
42	785.90	788.27	790.64	793.00	795.37	797.73	800.10	802.47	804.83	807.20	809.56	811.93	20.46
43	814.30	816.66	819.03	821.39	823.76	826.13	828.49	830.86	833.23	835.59	837.96	840.32	21.06
44	842.69	845.06	847.42	849.41	851.34	853.28	855.21	857.15	859.08	861.02	863.02	865.01	21.66
45	867.01	869.00											22.17

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 1 1/8 IN   CAP. = 869.48 S.W.LTON   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.086 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 3 OF 3

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WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	252	454	656	858	1060	1262	1464	1666	1868	2070	2272	2474	0.04
1	2676	2878	3080	3282	3484	3686	3888	4090	4292	4494	4696	4898	0.48
2	5100	5302	5557	5915	6272	6629	6986	7343	7700	8058	8415	8772	0.91
3	9129	9486	9843	10201	10558	10915	11272	11629	11987	12344	12701	13058	1.40
4	13415	13772	14130	14487	14844	15228	15647	16066	16484	16903	17322	17741	1.90
5	18159	18578	18997	19415	19834	20253	20671	21090	21509	21927	22346	22765	2.40
6	23183	23602	24021	24439	24858	25277	25695	26114	26549	26997	27445	27893	2.90
7	28341	28790	29238	29686	30134	30583	31031	31479	31927	32375	32824	33272	3.40
8	33720	34168	34616	35065	35477	35828	36179	36530	36882	37233	37584	37935	3.89
9	38286	38637	38988	39339	39691	40042	40393	40744	41095	41446	41797	42148	4.31
10	42500	42851	43202	43553	43904	44255	44606	44954	45297	45641	45984	46328	4.69
11	46671	47015	47358	47702	48045	48388	48732	49075	49419	49762	50106	50449	5.09
12	50793	51136	51480	51823	52166	52510	52853	53197	53540	53884	54228	54574	5.49
13	54919	55265	55610	55956	56301	56646	56992	57337	57683	58028	58374	58719	5.89
14	59065	59410	59755	60101	60446	60792	61137	61483	61828	62174	62519	62865	6.31
15	63210	63555	63900	64245	64590	64934	65279	65624	65969	66314	66659	67003	6.73

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 5 4/8 IN   CAP. = 227659.13 GALLONS   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.093 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 1 OF 3

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WATERMAN LASH — SOUNDING TABLE — FWD SW BALLAST TANK CL — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 21-44 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	67348	67693	68038	68383	68728	69072	69417	69762	70107	70452	70797	71141	7.15
17	71486	71831	72176	72521	72867	73213	73560	73906	74252	74599	74945	75291	7.58
18	75638	75984	76330	76677	77023	77370	77716	78062	78409	78755	79101	79448	8.01
19	79794	80141	80487	80833	81180	81526	81872	82225	82579	82933	83286	83640	8.44
20	83994	84348	84702	85055	85409	85763	86117	86470	86824	87178	87532	87886	8.88
21	88239	88593	88947	89301	89654	90008	90362	90716	91069	91423	91790	92158	9.32
22	92525	92892	93260	93627	93995	94362	94730	95097	95465	95832	96199	96567	9.77
23	96934	97302	97669	98037	98404	98771	99139	99506	99874	100241	100609	100976	10.23
24	101345	101730	102116	102501	102887	103273	103658	104044	104429	104815	105200	105586	10.69
25	105971	106357	106743	107128	107514	107899	108285	108670	109056	109442	109827	110213	11.16
26	110598	110984	111369	111758	112165	112572	112979	113386	113793	114200	114607	115014	11.64
27	115421	115828	116235	116642	117049	117456	117863	118270	118677	119084	119491	119898	12.13
28	120305	120712	121119	121526	121933	122340	122753	123185	123616	124047	124479	124910	12.63
29	125341	125773	126204	126635	127067	127498	127929	128361	128792	129223	129655	130086	13.13
30	130517	130949	131380	131811	132243	132674	133105	133537	133968	134409	134868	135326	13.65
31	135784	136242	136701	137159	137617	138076	138534	138992	139451	139909	140367	140825	14.17

TANK 100 PERCENT FULL   SOUNDING = 45 FT. 5 4/8 IN   CAP. = 227659.13 GALLONS   VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.   STRIKING PLATE 0.093 FT. ABV.LOWEST PT.TANK   TOTAL LENGTH 58.325 FT.

C7-1000   SHEET 2 OF 3

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 7

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	141284	141742	142200	142659	143117	143575	144034	144492	144950	145408	145867	146325	14.70
33	146797	147284	147771	148258	148745	149232	149719	150207	150694	151181	151668	152155	15.23
34	152642	153129	153616	154103	154590	155078	155565	156052	156539	157026	157513	158000	15.78
35	158487	158974	159461	159966	160483	161001	161518	162036	162553	163071	163588	164106	16.33
36	164623	165141	165658	166176	166693	167211	167728	168245	168763	169280	169798	170316	16.89
37	170833	171351	171868	172385	172903	173420	173959	174508	175058	175607	176156	176705	17.46
38	177255	177804	178353	178902	179452	180001	180550	181099	181649	182198	182747	183297	18.03
39	183846	184395	184944	185494	186043	186592	187142	187691	188240	188814	189396	189978	18.60
40	190560	191142	191724	192306	192888	193470	194052	194634	195216	195798	196380	196962	19.18
41	197544	198126	198708	199290	199872	200454	201036	201618	202200	202782	203364	203946	19.77
42	204557	205174	205790	206407	207023	207640	208256	208873	209489	210105	210722	211339	20.36
43	211955	212571	213188	213804	214421	215037	215653	216270	216887	217503	218119	218736	20.96
44	219352	219969	220585	221039	221485	221932	222379	222826	223273	223721	224182	224643	21.56
45	225104	225565	226026	226487	226948	227409							22.02

TANK 100 PERCENT FULL SOUNDING = 45 FT. 5 4/8 IN CAP. = 227659.13 GALLONS VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.093 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.96	1.73	2.50	3.28	4.05	4.82	5.59	6.36	7.13	7.90	8.68	9.45	0.04
1	10.22	10.99	11.76	12.53	13.31	14.08	14.85	15.62	16.39	17.16	17.93	18.71	0.48
2	19.48	20.25	21.22	22.59	23.95	25.32	26.68	28.05	29.41	30.77	32.14	33.50	0.91
3	34.87	36.23	37.59	38.96	40.32	41.69	43.05	44.41	45.78	47.14	48.51	49.87	1.40
4	51.24	52.60	53.96	55.33	56.69	58.16	59.76	61.36	62.96	64.56	66.16	67.75	1.90
5	69.35	70.95	72.55	74.15	75.75	77.35	78.95	80.55	82.15	83.74	85.34	86.94	2.40
6	88.54	90.14	91.74	93.34	94.94	96.54	98.14	99.73	101.39	103.11	104.82	106.53	2.90
7	108.24	109.95	111.67	113.38	115.09	116.80	118.51	120.22	121.94	123.65	125.36	127.07	3.40
8	128.78	130.50	132.21	133.92	135.49	136.83	138.18	139.52	140.86	142.20	143.54	144.88	3.89
9	146.22	147.56	148.90	150.25	151.59	152.93	154.27	155.61	156.95	158.29	159.63	160.97	4.31
10	162.31	163.66	165.00	166.34	167.68	169.02	170.36	171.69	173.00	174.31	175.62	176.93	4.69
11	178.25	179.56	180.87	182.18	183.49	184.81	186.12	187.43	188.74	190.05	191.36	192.68	5.09
12	193.99	195.30	196.61	197.92	199.23	200.55	201.86	203.17	204.48	205.79	207.11	208.43	5.49
13	209.75	211.07	212.39	213.71	215.02	216.34	217.66	218.98	220.30	221.62	222.94	224.26	5.89
14	225.58	226.90	228.22	229.54	230.86	232.18	233.50	234.81	236.13	237.45	238.77	240.09	6.31
15	241.41	242.73	244.05	245.36	246.68	248.00	249.31	250.63	251.95	253.27	254.58	255.90	6.73

TANK 100 PERCENT FULL SOUNDING = 45 FT. 5 4/8 IN CAP. = 869.48 S.W.LTON VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.093 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	257.22	258.53	259.85	261.17	262.48	263.80	265.12	266.44	267.75	269.07	270.39	271.70	7.15
17	273.02	274.34	275.65	276.97	278.29	279.62	280.94	282.26	283.58	284.91	286.23	287.55	7.58
18	288.88	290.20	291.52	292.84	294.17	295.49	296.81	298.14	299.46	300.78	302.10	303.43	8.01
19	304.75	306.07	307.40	308.72	310.04	311.36	312.69	314.03	315.39	316.74	318.09	319.44	8.44
20	320.79	322.14	323.49	324.84	326.19	327.55	328.90	330.25	331.60	332.95	334.30	335.65	8.88
21	337.00	338.35	339.71	341.06	342.41	343.76	345.11	346.46	347.81	349.16	350.56	351.97	9.32
22	353.37	354.77	356.18	357.58	358.98	360.39	361.79	363.19	364.60	366.00	367.40	368.81	9.77
23	370.21	371.61	373.02	374.42	375.82	377.23	378.63	380.03	381.44	382.84	384.24	385.65	10.23
24	387.06	388.53	390.00	391.47	392.95	394.42	395.89	397.36	398.84	400.31	401.78	403.25	10.69
25	404.73	406.20	407.67	409.14	410.62	412.09	413.56	415.03	416.51	417.98	419.45	420.92	11.16
26	422.40	423.87	425.34	426.83	428.38	429.94	431.49	433.04	434.60	436.15	437.71	439.26	11.64
27	440.82	442.37	443.93	445.48	447.03	448.59	450.14	451.70	453.25	454.81	456.36	457.91	12.13
28	459.47	461.02	462.58	464.13	465.69	467.24	468.82	470.47	472.11	473.76	475.41	477.06	12.63
29	478.70	480.35	482.00	483.65	485.29	486.94	488.59	490.24	491.88	493.53	495.18	496.82	13.13
30	498.47	500.12	501.77	503.41	505.06	506.71	508.36	510.00	511.65	513.34	515.09	516.84	13.65
31	518.59	520.34	522.09	523.84	525.59	527.34	529.09	530.84	532.59	534.34	536.09	537.84	14.17

TANK 100 PERCENT FULL SOUNDING = 45 FT. 5 4/8 IN CAP. = 869.48 S.W.LTON VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.093 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FWD SW BALLAST TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 21-44 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	539.59	541.34	543.09	544.84	546.59	548.34	550.09	551.84	553.59	555.34	557.09	558.84	14.70
33	560.65	562.51	564.37	566.23	568.09	569.95	571.81	573.67	575.53	577.39	579.25	581.11	15.23
34	582.97	584.83	586.69	588.55	590.41	592.27	594.13	595.99	597.85	599.71	601.57	603.43	15.78
35	605.29	607.15	609.01	610.94	612.92	614.89	616.87	618.85	620.82	622.80	624.78	626.75	16.33
36	628.73	630.70	632.68	634.66	636.63	638.61	640.59	642.56	644.54	646.52	648.49	650.47	16.89
37	652.45	654.42	656.40	658.37	660.35	662.33	664.38	666.48	668.58	670.68	672.78	674.87	17.46
38	676.97	679.07	681.17	683.26	685.36	687.46	689.56	691.65	693.75	695.85	697.95	700.05	18.03
39	702.14	704.24	706.34	708.44	710.53	712.63	714.73	716.83	718.93	721.12	723.34	725.56	18.60
40	727.79	730.01	732.23	734.46	736.68	738.90	741.12	743.35	745.57	747.79	750.01	752.24	19.18
41	754.46	756.68	758.90	761.13	763.35	765.57	767.80	770.02	772.24	774.46	776.69	778.91	19.77
42	781.25	783.60	785.95	788.31	790.66	793.02	795.37	797.73	800.08	802.43	804.79	807.14	20.36
43	809.50	811.85	814.21	816.56	818.92	821.27	823.62	825.98	828.33	830.69	833.04	835.40	20.96
44	837.75	840.10	842.46	844.19	845.90	847.60	849.31	851.02	852.72	854.44	856.20	857.96	21.56
45	859.72	861.48	863.24	865.00	866.76	868.52							22.02

TANK 100 PERCENT FULL SOUNDING = 45 FT. 5 4/8 IN CAP. = 869.48 S.W.LTON VCG = 22.22 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.093 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 58.325 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#1 SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	697.16	702.04	706.91	711.78	716.65	721.53	726.40	731.27	736.15	741.02	745.89	750.77	9.16
17	755.64	760.51	765.39	770.26	775.13	780.01	784.88	789.75	794.63	799.50	804.37	809.24	9.73
18	814.15	819.18	824.20	829.22	834.24	839.26	844.29	849.31	854.33	859.35	864.37	869.39	10.29
19	874.42	879.44	884.46	889.48	894.50	899.53	904.55	909.57	914.59	919.61	924.64	929.66	10.85
20	934.71	939.87	945.03	950.19	955.34	960.50	965.66	970.81	975.97	981.13	986.29	991.44	11.42
21	996.60	1001.76	1006.92	1012.07	1017.23	1022.39	1027.55	1032.70	1037.86	1043.02	1048.18	1053.33	11.98
22	1058.52	1063.81	1069.09	1074.38	1079.66	1084.94	1090.23	1095.51	1100.80	1106.08	1111.37	1116.65	12.54
23	1121.94	1127.22	1132.51	1137.79	1143.08	1148.36	1153.65	1158.93	1164.21	1169.50	1174.78	1180.07	13.10
24	1185.38	1190.79	1196.20	1201.60	1207.01	1212.42	1217.82	1223.23	1228.64	1234.05	1239.45	1244.86	13.66
25	1250.27	1255.67	1261.08	1266.49	1271.89	1277.30	1282.71	1288.11	1293.52	1298.93	1304.34	1309.74	14.22

TANK 100 PERCENT FULL SOUNDING = 25 FT. 11 6/8 IN CAP. = 1313.85 S.W.LTON VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 64.980 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#1 SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.43	2.23	4.02	5.82	7.61	9.41	11.20	13.00	14.79	16.59	18.38	20.18	0.01
1	21.97	23.77	25.56	27.36	29.15	30.95	32.74	34.54	36.33	38.13	39.92	41.72	0.58
2	43.73	46.46	49.18	51.90	54.62	57.34	60.06	62.79	65.51	68.23	70.95	73.67	1.14
3	76.39	79.12	81.84	84.56	87.28	90.00	92.73	95.45	98.17	100.89	103.61	106.33	1.72
4	109.19	112.46	115.73	119.00	122.27	125.55	128.82	132.09	135.36	138.63	141.91	145.18	2.29
5	148.45	151.72	154.99	158.26	161.54	164.81	168.08	171.35	174.62	177.90	181.17	184.44	2.87
6	187.81	191.49	195.18	198.86	202.55	206.23	209.91	213.60	217.28	220.97	224.65	228.33	3.44
7	232.02	235.70	239.39	243.07	246.75	250.44	254.12	257.81	261.49	265.17	268.86	272.54	4.02
8	276.31	280.33	284.35	288.37	292.39	296.41	300.43	304.45	308.47	312.49	316.51	320.53	4.60
9	324.55	328.57	332.59	336.61	340.63	344.65	348.67	352.69	356.71	360.73	364.75	368.77	5.17
10	372.85	377.14	381.43	385.71	390.00	394.29	398.57	402.86	407.15	411.43	415.72	420.00	5.74
11	424.29	428.58	432.86	437.15	441.44	445.72	450.01	454.30	458.58	462.87	467.16	471.44	6.32
12	475.78	480.30	484.81	489.33	493.84	498.36	502.87	507.39	511.90	516.41	520.93	525.44	6.89
13	529.96	534.47	538.99	543.50	548.02	552.53	557.04	561.56	566.07	570.59	575.10	579.62	7.46
14	584.18	588.88	593.59	598.30	603.00	607.71	612.41	617.12	621.83	626.53	631.24	635.94	8.03
15	640.65	645.36	650.06	654.77	659.47	664.18	668.89	673.59	678.30	683.00	687.71	692.42	8.59

TANK 100 PERCENT FULL SOUNDING = 25 FT. 11 6/8 IN CAP. = 1313.85 S.W.LTON VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 64.980 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#1 SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	182542	183817	185093	186369	187645	188921	190197	191473	192749	194025	195301	196577	9.16
17	197853	199129	200405	201681	202957	204233	205509	206785	208061	209337	210613	211889	9.73
18	213174	214489	215804	217119	218434	219748	221064	222378	223693	225008	226323	227638	10.29
19	228953	230268	231583	232898	234213	235527	236843	238157	239472	240787	242102	243417	10.85
20	244741	246091	247441	248792	250142	251492	252843	254193	255544	256894	258244	259595	11.42
21	260945	262296	263646	264996	266347	267697	269048	270398	271748	273099	274449	275799	11.98
22	277158	278542	279925	281309	282693	284076	285460	286844	288227	289611	290995	292379	12.54
23	293763	295146	296530	297914	299297	300681	302065	303448	304832	306216	307599	308983	13.10
24	310375	311790	313206	314622	316038	317453	318869	320285	321700	323116	324532	325948	13.66
25	327364	328779	330195	331611	333026	334442	335858	337274	338689	340105	341521	342936	14.22

TANK 100 PERCENT FULL SOUNDING = 25 FT. 11 6/8 IN CAP. = 344012.69 GALLONS VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 64.980 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#1 SW BALLAST TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	113	583	1053	1523	1993	2463	2933	3403	3873	4343	4813	5283	0.01
1	5753	6223	6693	7163	7633	8103	8573	9043	9513	9983	10453	10923	0.58
2	11451	12164	12876	13589	14302	15014	15727	16440	17152	17865	18578	19290	1.14
3	20003	20715	21428	22141	22853	23566	24279	24991	25704	26417	27129	27842	1.72
4	28589	29446	30303	31159	32016	32873	33729	34586	35443	36299	37156	38013	2.29
5	38869	39726	40583	41439	42296	43153	44009	44866	45722	46579	47436	48292	2.87
6	49175	50140	51104	52069	53034	53998	54963	55927	56892	57857	58821	59786	3.44
7	60750	61715	62680	63644	64609	65574	66538	67503	68467	69432	70397	71361	4.02
8	72347	73400	74452	75505	76557	77610	78663	79715	80768	81820	82873	83926	4.60
9	84978	86031	87083	88136	89189	90241	91294	92346	93399	94452	95504	96557	5.17
10	97626	98748	99871	100993	102116	103238	104360	105483	106605	107727	108850	109972	5.74
11	111094	112217	113339	114461	115584	116706	117829	118951	120073	121196	122318	123440	6.32
12	124577	125759	126941	128123	129305	130487	131669	132851	134033	135215	136397	137580	6.89
13	138762	139944	141126	142308	143490	144672	145854	147036	148218	149400	150582	151764	7.46
14	152958	154190	155423	156655	157887	159119	160351	161584	162816	164048	165280	166512	8.03
15	167745	168977	170209	171441	172674	173906	175138	176370	177602	178835	180067	181299	8.59

TANK 100 PERCENT FULL SOUNDING = 25 FT. 11 6/8 IN CAP. = 344012.69 GALLONS VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 64.980 FT.

SHEET 1 OF 2

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 8

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	319	757	1194	1632	2069	2507	2944	3382	3819	4257	4694	5132	0.03
1	5569	6007	6444	6882	7319	7757	8194	8632	9069	9507	9944	10382	0.57
2	11013	11716	12419	13123	13826	14529	15232	15936	16639	17342	18046	18749	1.11
3	19452	20155	20859	21562	22265	22968	23672	24375	25078	25781	26485	27188	1.68
4	27998	28848	29698	30548	31397	32247	33097	33947	34797	35647	36496	37346	2.26
5	38196	39046	39896	40745	41595	42445	43295	44145	44995	45844	46694	47544	2.83
6	48474	49433	50392	51351	52310	53270	54229	55188	56147	57106	58065	59025	3.41
7	59984	60943	61902	62861	63820	64780	65739	66698	67657	68616	69576	70535	3.98
8	71559	72607	73655	74703	75751	76800	77848	78896	79944	80992	82040	83089	4.56
9	84137	85185	86233	87281	88329	89377	90426	91474	92522	93570	94618	95666	5.13
10	96766	97885	99003	100122	101241	102360	103478	104597	105716	106834	107953	109072	5.71
11	110191	111309	112428	113547	114665	115784	116903	118022	119140	120259	121378	122496	6.28
12	123659	124838	126017	127196	128375	129554	130733	131912	133091	134270	135449	136628	6.85
13	137807	138985	140164	141343	142522	143701	144880	146059	147238	148417	149596	150775	7.42
14	151991	153220	154450	155679	156909	158138	159368	160598	161827	163057	164286	165516	7.99
15	166745	167975	169204	170434	171663	172893	174123	175352	176582	177811	179041	180270	8.56

TANK 100 PERCENT FULL SOUNDING = 26 FT. 2 INCHES CAP. = 344012.69 GALLONS VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.061 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 1 OF 2

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	181532	182805	184079	185352	186626	187899	189173	190447	191720	192994	194268	195541	9.12
17	196815	198088	199362	200636	201909	203183	204456	205730	207003	208277	209551	210824	9.69
18	212127	213439	214752	216065	217378	218690	220003	221316	222629	223942	225254	226567	10.25
19	227880	229193	230505	231818	233131	234444	235757	237069	238382	239695	241008	242320	10.82
20	243659	245008	246356	247704	249053	250401	251750	253098	254446	255795	257143	258491	11.38
21	259840	261188	262537	263885	265233	266582	267930	269279	270627	271975	273324	274672	11.94
22	276045	277427	278808	280190	281572	282954	284336	285717	287099	288481	289863	291245	12.50
23	292627	294008	295390	296772	298154	299535	300917	302299	303681	305063	306444	307826	13.06
24	309176	310515	311853	313191	314530	315868	317206	318544	319883	321221	322559	323898	13.62
25	325236	326574	327913	329251	330589	331927	333266	334604	335942	337281	338619	339957	14.15
26	341296	342635											14.68

TANK 100 PERCENT FULL SOUNDING = 26 FT. 2 INCHES CAP. = 344012.69 GALLONS VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.061 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 2 OF 2

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.22	2.89	4.56	6.23	7.90	9.57	11.24	12.91	14.59	16.26	17.93	19.60	0.03
1	21.27	22.94	24.61	26.28	27.95	29.62	31.29	32.97	34.64	36.31	37.98	39.65	0.57
2	42.06	44.75	47.43	50.12	52.80	55.49	58.18	60.86	63.55	66.23	68.92	71.61	1.11
3	74.29	76.98	79.66	82.35	85.03	87.72	90.41	93.09	95.78	98.46	101.15	103.84	1.68
4	106.93	110.18	113.42	116.67	119.91	123.16	126.40	129.65	132.90	136.14	139.39	142.63	2.26
5	145.88	149.12	152.37	155.62	158.86	162.11	165.35	168.60	171.84	175.09	178.33	181.58	2.83
6	185.13	188.79	192.46	196.12	199.78	203.45	207.11	210.77	214.44	218.10	221.76	225.43	3.41
7	229.09	232.75	236.42	240.08	243.74	247.41	251.07	254.73	258.40	262.06	265.72	269.39	3.98
8	273.30	277.30	281.30	285.31	289.31	293.31	297.32	301.32	305.32	309.33	313.33	317.33	4.56
9	321.33	325.34	329.34	333.34	337.35	341.35	345.35	349.36	353.36	357.36	361.37	365.37	5.13
10	369.57	373.84	378.11	382.39	386.66	390.93	395.20	399.48	403.75	408.02	412.29	416.57	5.71
11	420.84	425.11	429.39	433.66	437.93	442.20	446.48	450.75	455.02	459.29	463.57	467.84	6.28
12	472.28	476.78	481.28	485.79	490.29	494.79	499.29	503.80	508.30	512.80	517.31	521.81	6.85
13	526.31	530.81	535.32	539.82	544.32	548.82	553.33	557.83	562.33	566.83	571.34	575.84	7.42
14	580.48	585.18	589.87	594.57	599.27	603.96	608.66	613.35	618.05	622.75	627.44	632.14	7.99
15	636.83	641.53	646.23	650.92	655.62	660.31	665.01	669.70	674.40	679.10	683.79	688.49	8.56

TANK 100 PERCENT FULL SOUNDING = 26 FT. 2 INCHES CAP. = 1313.85 S.W.LTON VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.061 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 1 OF 2

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	693.31	698.17	703.03	707.90	712.76	717.63	722.49	727.35	732.22	737.08	741.95	746.81	9.12
17	751.67	756.54	761.40	766.27	771.13	775.99	780.86	785.72	790.59	795.45	800.32	805.18	9.69
18	810.15	815.17	820.18	825.19	830.21	835.22	840.24	845.25	850.26	855.28	860.29	865.30	10.25
19	870.32	875.33	880.35	885.36	890.37	895.39	900.40	905.41	910.43	915.44	920.46	925.47	10.82
20	930.58	935.73	940.88	946.03	951.18	956.33	961.48	966.63	971.78	976.93	982.08	987.23	11.38
21	992.38	997.53	1002.68	1007.83	1012.98	1018.13	1023.28	1028.43	1033.58	1038.73	1043.88	1049.03	11.94
22	1054.27	1059.55	1064.82	1070.10	1075.38	1080.66	1085.93	1091.21	1096.49	1101.77	1107.04	1112.32	12.50
23	1117.60	1122.88	1128.15	1133.43	1138.71	1143.98	1149.26	1154.54	1159.82	1165.09	1170.37	1175.65	13.06
24	1180.81	1185.92	1191.03	1196.14	1201.25	1206.36	1211.47	1216.58	1221.70	1226.81	1231.92	1237.03	13.62
25	1242.14	1247.25	1252.36	1257.48	1262.59	1267.70	1272.81	1277.92	1283.03	1288.14	1293.25	1298.36	14.15
26	1303.48	1308.59											14.68

TANK 100 PERCENT FULL SOUNDING = 26 FT. 2 INCHES CAP. = 1313.85 S.W.LTON VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.061 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 2 OF 2

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	689.46	694.31	699.17	704.02	708.88	713.73	718.59	723.44	728.30	733.15	738.01	742.86	9.09
17	747.72	752.57	757.43	762.28	767.14	771.99	776.85	781.70	786.56	791.41	796.27	801.16	9.65
18	806.16	811.17	816.17	821.18	826.18	831.19	836.19	841.20	846.21	851.21	856.22	861.22	10.22
19	866.23	871.23	876.24	881.24	886.25	891.25	896.26	901.27	906.27	911.28	916.28	921.32	10.78
20	926.46	931.60	936.74	941.89	947.03	952.17	957.31	962.45	967.60	972.74	977.88	983.02	11.34
21	988.17	993.31	998.45	1003.59	1008.73	1013.88	1019.02	1024.16	1029.30	1034.44	1039.59	1044.76	11.90
22	1050.03	1055.30	1060.57	1065.84	1071.11	1076.38	1081.65	1086.92	1092.19	1097.46	1102.73	1108.00	12.47
23	1113.27	1118.54	1123.81	1129.08	1134.35	1139.62	1144.89	1150.16	1155.43	1160.70	1165.97	1171.15	13.03
24	1176.02	1180.89	1185.76	1190.63	1195.50	1200.37	1205.24	1210.11	1214.98	1219.85	1224.72	1229.59	13.58
25	1234.47	1239.34	1244.21	1249.08	1253.95	1258.82	1263.69	1268.56	1273.43	1278.30	1283.17	1288.04	14.09
26	1292.91	1297.78	1302.65	1307.52	1312.39								14.59

TANK 100 PERCENT FULL SOUNDING = 26 FT. 4 2/8 IN CAP. = 1313.85 S.W.LTON VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.102 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 2 OF 2

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.89	3.44	4.99	6.54	8.09	9.64	11.19	12.74	14.29	15.84	17.39	18.94	0.05
1	20.49	22.04	23.59	25.15	26.70	28.25	29.80	31.35	32.90	34.45	36.00	37.79	0.56
2	40.44	43.09	45.74	48.38	51.03	53.68	56.33	58.98	61.63	64.28	66.93	69.57	1.08
3	72.22	74.87	77.52	80.17	82.82	85.47	88.12	90.77	93.41	96.06	98.71	101.48	1.65
4	104.70	107.92	111.14	114.36	117.58	120.80	124.02	127.24	130.46	133.68	136.89	140.11	2.22
5	143.33	146.55	149.77	152.99	156.21	159.43	162.65	165.87	169.08	172.30	175.52	178.83	2.80
6	182.48	186.12	189.76	193.40	197.04	200.69	204.33	207.97	211.61	215.26	218.90	222.54	3.37
7	226.18	229.82	233.47	237.11	240.75	244.39	248.04	251.68	255.32	258.96	262.60	266.32	3.95
8	270.31	274.29	278.28	282.26	286.25	290.24	294.22	298.21	302.19	306.18	310.17	314.15	4.52
9	318.14	322.12	326.11	330.09	334.08	338.07	342.05	346.04	350.02	354.01	358.00	362.04	5.10
10	366.30	370.56	374.82	379.08	383.33	387.59	391.85	396.11	400.37	404.63	408.88	413.14	5.67
11	417.40	421.66	425.92	430.18	434.44	438.69	442.95	447.21	451.47	455.73	459.99	464.30	6.24
12	468.79	473.28	477.77	482.26	486.75	491.24	495.73	500.22	504.71	509.20	513.69	518.18	6.81
13	522.67	527.16	531.66	536.15	540.64	545.13	549.62	554.11	558.60	563.09	567.58	572.11	7.38
14	576.80	581.49	586.17	590.86	595.54	600.23	604.91	609.60	614.28	618.97	623.66	628.34	7.95
15	633.03	637.71	642.40	647.08	651.77	656.45	661.14	665.83	670.51	675.20	679.88	684.60	8.52

TANK 100 PERCENT FULL SOUNDING = 26 FT. 4 2/8 IN CAP. = 1313.85 S.W.LTON VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.102 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 1 OF 2

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	180524	181795	183067	184338	185609	186880	188152	189423	190694	191965	193236	194507	9.09
17	195779	197050	198321	199592	200864	202135	203406	204677	205948	207220	208491	209770	9.65
18	211081	212392	213702	215013	216324	217634	218945	220256	221566	222877	224187	225498	10.22
19	226809	228119	229430	230741	232051	233362	234673	235983	237294	238604	239915	241233	10.78
20	242580	243926	245272	246619	247965	249312	250658	252004	253351	254697	256044	257390	11.34
21	258736	260083	261429	262776	264122	265468	266815	268161	269507	270854	272200	273554	11.90
22	274934	276314	277693	279074	280453	281833	283213	284593	285973	287353	288733	290112	12.47
23	291492	292872	294252	295632	297012	298392	299772	301152	302531	303911	305291	306648	13.03
24	307924	309199	310474	311749	313024	314300	315575	316850	318125	319401	320676	321951	13.58
25	323226	324501	325777	327052	328327	329602	330878	332153	333428	334703	335978	337254	14.09
26	338529	339805	341080	342355	343630								14.59

TANK 100 PERCENT FULL SOUNDING = 26 FT. 4 2/8 IN CAP. = 344012.69 GALLONS VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.102 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 2 OF 2

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SOUNDING TABLE

WATERMAN LASH — #1 SW BALLAST TANK CL — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 52-55 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	495	901	1306	1712	2118	2524	2930	3336	3742	4148	4554	4960	0.05
1	5366	5772	6178	6584	6990	7396	7802	8208	8614	9020	9426	9894	0.56
2	10588	11281	11975	12669	13362	14056	14749	15443	16136	16830	17523	18217	1.08
3	18911	19604	20298	20991	21685	22378	23072	23766	24459	25153	25846	26572	1.65
4	27415	28258	29101	29944	30787	31629	32472	33315	34158	35001	35844	36687	2.22
5	37529	38372	39215	40058	40901	41744	42586	43429	44272	45115	45958	46825	2.80
6	47779	48732	49686	50640	51593	52547	53501	54454	55408	56362	57315	58269	3.37
7	59222	60176	61130	62083	63037	63991	64944	65898	66852	67805	68759	69732	3.95
8	70776	71820	72863	73907	74951	75994	77038	78081	79125	80169	81212	82256	4.52
9	83300	84343	85387	86430	87474	88518	89561	90605	91649	92692	93736	94795	5.10
10	95910	97025	98140	99255	100370	101485	102600	103715	104830	105945	107060	108175	5.67
11	109290	110405	111520	112635	113750	114865	115980	117096	118211	119326	120441	121569	6.24
12	122745	123920	125096	126272	127448	128624	129800	130975	132151	133327	134503	135679	6.81
13	136854	138030	139206	140382	141558	142733	143909	145085	146261	147437	148613	149799	7.38
14	151026	152253	153480	154707	155934	157161	158387	159614	160841	162068	163295	164522	7.95
15	165748	166975	168202	169429	170656	171883	173110	174336	175563	176790	178017	179253	8.52

TANK 100 PERCENT FULL SOUNDING = 26 FT. 4 2/8 IN CAP. = 344012.69 GALLONS VCG = 14.77 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.102 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 64.980 FT.

C7-1000 SHEET 1 OF 2

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 9

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SOUNDING TABLE

WATERMAN LASH

#2 DB SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3698	5524	7350	9177	11003	12829	14655	16481	18307	20133	21960	23786	0.09
1	25612	27438	29264	31090	32917	34743	36569	38395	40221	42047	43874	45711	0.61
2	47966	50383	52799	55216	57632	60048	62465	64881	67297	69714	72130	74547	1.13
3	76963	79379	81796	84212	86628	89045	91493	93945	96397	98849	101301	103753	1.65
4	106205	108811	111476	114142	116807	119473	122138	124804	127469	130135	132800	135466	2.18
5	138168	140897	143625	146354	149082	151811	154539	156578	157277	157976	158675	159374	2.70
6	160073	160772	161471	162170	162869	163568	164267	164966	165665	166364	167067	167769	3.08
7	168471	169174	169876	170579	171281	171983	172686	173380	174045	174711	175376	176042	3.25
8	176707	177373	178038	178703	179369	180034	180700						3.43

TANK 100 PERCENT FULL SOUNDING = 8 FT. 6 6/8 IN CAP. = 181235.75 GALLONS VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#2 DB SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	14.12	21.10	28.07	35.05	42.02	49.00	55.97	62.94	69.92	76.89	83.87	90.84	0.09
1	97.82	104.79	111.77	118.74	125.72	132.69	139.66	146.64	153.61	160.59	167.56	174.58	0.61
2	183.19	192.42	201.65	210.88	220.11	229.34	238.57	247.79	257.02	266.25	275.48	284.71	1.13
3	293.94	303.17	312.39	321.62	330.85	340.08	349.43	358.79	368.16	377.52	386.89	396.25	1.65
4	405.62	415.57	425.75	435.93	446.11	456.29	466.47	476.65	486.83	497.01	507.19	517.37	2.18
5	527.69	538.11	548.53	558.95	569.37	579.80	590.22	598.00	600.67	603.34	606.01	608.68	2.70
6	611.35	614.02	616.69	619.36	622.03	624.70	627.37	630.04	632.71	635.38	638.06	640.74	3.08
7	643.43	646.11	648.79	651.47	654.16	656.84	659.52	662.17	664.71	667.26	669.80	672.34	3.25
8	674.88	677.42	679.96	682.50	685.05	687.59	690.13						3.43

TANK 100 PERCENT FULL SOUNDING = 8 FT. 6 6/8 IN CAP. = 692.18 S.W.LTON VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

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SOUNDING TABLE

WATERMAN LASH

#2 DB SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3176	4640	6105	7569	9033	10498	11962	13427	14891	16355	17820	19284	0.08
1	20749	22213	23677	25142	26606	28071	29535	30999	32464	33928	35393	36866	0.52
2	39050	41399	43748	46098	48447	50796	53146	55495	57844	60193	62543	64892	0.96
3	67241	69591	71940	74289	76638	78988	81369	83753	86138	88523	90908	93292	1.48
4	95677	98247	100873	103499	106126	108752	111378	114004	116631	119257	121883	124509	2.00
5	127174	129864	132555	135245	137936	140626	143317	145420	146479	147537	148595	149654	2.53
6	150712	151771	152829	153887	154946	156004	157062	158121	159179	160239	161303	162367	2.93
7	163430	164494	165558	166622	167686	168750	169814	170755	171277	171798	172319	172841	3.15
8	173362	173883	174405	174926	175447	175968	176490	177011	177534	178057	178579	179102	3.35
9	179624	180147	180670	181192									3.51

TANK 100 PERCENT FULL SOUNDING = 9 FT. 3 INCHES CAP. = 181235.69 GALLONS VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.171 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

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SOUNDING TABLE

WATERMAN LASH

#2 DB SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	12.13	17.72	23.32	28.91	34.50	40.09	45.65	51.28	56.87	62.46	68.06	73.65	0.08
1	79.24	84.84	90.43	96.02	101.61	107.21	112.80	118.39	123.99	129.58	135.17	140.80	0.52
2	149.14	158.11	167.08	176.06	185.03	194.00	202.97	211.95	220.92	229.89	238.86	247.84	0.96
3	256.81	265.78	274.75	283.72	292.70	301.67	310.76	319.87	328.98	338.09	347.19	356.30	1.48
4	365.41	375.22	385.25	395.28	405.31	415.34	425.38	435.41	445.44	455.47	465.50	475.53	2.00
5	485.70	495.98	506.25	516.53	526.80	537.08	547.36	555.39	559.43	563.47	567.52	571.56	2.53
6	575.60	579.64	583.68	587.73	591.77	595.81	599.85	603.90	607.94	611.98	616.05	620.11	2.93
7	624.17	628.24	632.30	636.36	640.43	644.49	648.55	652.15	654.14	656.13	658.12	660.11	3.15
8	662.10	664.09	666.09	668.08	670.07	672.06	674.05	676.04	678.04	680.03	682.03	684.03	3.35
9	686.02	688.02	690.01	692.01									3.51

TANK 100 PERCENT FULL SOUNDING = 9 FT. 3 INCHES CAP. = 692.18 S.W.LTON VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.171 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

2 DB SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	14.12	21.10	28.07	35.05	42.02	49.00	55.97	62.94	69.92	76.89	83.87	90.84	0.09
1	97.82	104.79	111.77	118.74	125.72	132.69	139.66	146.64	153.61	160.59	167.56	174.58	0.61
2	183.19	192.42	201.65	210.88	220.11	229.34	238.57	247.79	257.02	266.25	275.48	284.71	1.13
3	293.94	303.17	312.39	321.62	330.85	340.08	349.43	358.79	368.16	377.52	386.89	396.25	1.65
4	405.62	415.57	425.75	435.93	446.11	456.29	466.47	476.65	486.83	497.01	507.19	517.37	2.18
5	527.69	538.11	548.53	558.95	569.37	579.80	590.22	598.00	600.67	603.34	606.01	608.68	2.70
6	611.35	614.02	616.69	619.36	622.03	624.70	627.37	630.04	632.71	635.38	638.06	640.74	3.08
7	643.43	646.11	648.79	651.47	654.16	656.84	659.52	662.17	664.71	667.26	669.80	672.34	3.25
8	674.88	677.42	679.96	682.50	685.05	687.59	690.13						3.43

TANK 100 PERCENT FULL SOUNDING = 8 FT. 6 6/8 IN CAP. = 692.18 S.W.LTON VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

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SOUNDING TABLE

WATERMAN LASH

2 DB SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3698	5524	7350	9177	11003	12829	14655	16481	18307	20133	21960	23786	0.09
1	25612	27438	29264	31090	32917	34743	36569	38395	40221	42047	43874	45711	0.61
2	47966	50383	52799	55216	57632	60048	62465	64881	67297	69714	72130	74547	1.13
3	76963	79379	81796	84212	86628	89045	91493	93945	96397	98849	101301	103753	1.65
4	106205	108811	111476	114142	116807	119473	122138	124804	127469	130135	132800	135466	2.18
5	138168	140897	143625	146354	149082	151811	154539	156578	157277	157976	158675	159374	2.70
6	160073	160772	161471	162170	162869	163568	164267	164966	165665	166364	167067	167769	3.08
7	168471	169174	169876	170579	171281	171983	172686	173380	174045	174711	175376	176042	3.25
8	176707	177373	178038	178703	179369	180034	180700						3.43

TANK 100 PERCENT FULL SOUNDING = 8 FT. 6 6/8 IN CAP. = 181235.75 GALLONS VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#2 DB SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	10.01	14.34	18.67	22.99	27.32	31.65	35.98	40.31	44.63	48.96	53.29	57.62	0.07
1	61.94	66.27	70.60	74.93	79.26	83.58	87.91	92.24	96.57	100.90	105.22	109.58	0.46
2	117.80	126.45	135.09	143.74	152.39	161.03	169.68	178.33	186.97	195.62	204.27	212.91	0.85
3	221.56	230.21	238.85	247.50	256.15	264.79	273.56	282.34	291.12	299.90	308.68	317.46	1.34
4	326.24	335.90	345.76	355.62	365.48	375.34	385.21	395.07	404.93	414.79	424.65	434.52	1.85
5	444.53	454.64	464.75	474.86	484.97	495.08	505.20	513.51	518.89	524.27	529.64	535.02	2.37
6	540.40	545.78	551.16	556.53	561.91	567.29	572.67	578.04	583.42	588.81	594.21	599.62	2.78
7	605.03	610.44	615.84	621.25	626.66	632.07	637.47	642.04	643.81	645.57	647.34	649.10	3.07
8	650.87	652.63	654.40	656.16	657.92	659.69	661.45	663.22	664.99	666.76	668.53	670.30	3.28
9	672.07	673.84	675.61	677.38	679.15	680.92	682.69	684.46	686.23	688.00	689.77	691.54	3.42

TANK 100 PERCENT FULL SOUNDING = 9 FT. 11 2/8 IN CAP. = 692.18 S.W.LTON VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.182 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#2 DB SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2621	3754	4887	6021	7154	8287	9420	10553	11687	12820	13953	15086	0.07
1	16219	17353	18486	19619	20752	21885	23018	24152	25285	26418	27551	28692	0.46
2	30844	33108	35372	37636	39900	42164	44428	46692	48956	51220	53484	55748	0.85
3	58012	60276	62540	64804	67068	69332	71627	73926	76225	78524	80823	83122	1.34
4	85421	87949	90531	93114	95696	98278	100860	103443	106025	108607	111189	113771	1.85
5	116392	119040	121687	124335	126983	129630	132278	134455	135863	137271	138679	140087	2.37
6	141496	142904	144312	145720	147128	148536	149944	151352	152760	154170	155586	157002	2.78
7	158418	159834	161250	162666	164081	165497	166913	168109	168571	169033	169495	169957	3.07
8	170419	170882	171344	171806	172268	172730	173192	173654	174117	174581	175044	175508	3.28
9	175971	176435	176898	177361	177825	178288	178752	179215	179678	180142	180605	181069	3.42

TANK 100 PERCENT FULL SOUNDING = 9 FT. 11 2/8 IN CAP. = 181235.69 GALLONS VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.182 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 10

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WATERMAN LASH

SOUNDING TABLE

2 DB SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3176	4640	6105	7569	9033	10498	11962	13427	14891	16355	17820	19284	0.08
1	20749	22213	23677	25142	26606	28071	29535	30999	32464	33928	35393	36856	0.52
2	39050	41399	43748	46098	48447	50796	53146	55495	57844	60193	62543	64892	0.96
3	67241	69591	71940	74289	76638	78988	81365	83755	86133	88523	90908	93292	1.48
4	95677	98247	100873	103499	106126	108752	111378	114004	116631	119257	121883	124509	2.00
5	127174	129864	132555	135245	137936	140626	143317	145420	146479	147537	148595	149654	2.53
6	150712	151771	152829	153887	154946	156004	157062	158121	159179	160239	161303	162367	2.93
7	163430	164494	165558	166622	167686	168750	169814	170755	171277	171798	172319	172841	3.15
8	173362	173883	174405	174926	175447	175968	176490	177011	177534	178057	178579	179102	3.35
9	179624	180147	180670	181192									3.51

TANK 100 PERCENT FULL SOUNDING = 9 FT. 3 INCHES CAP. = 181235.69 GALLONS VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.171 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 DB SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	28.89	33.52	38.15	42.78	47.41	52.04	56.67	61.31	65.94	70.57	75.20	79.83	0.25
1	84.46	89.09	93.72	98.35	102.98	107.61	112.73	119.39	126.05	132.72	139.38	146.04	0.73
2	152.70	159.37	166.03	172.69	179.35	186.02	192.68	199.34	206.00	212.67	219.33	225.99	1.24
3	232.65	239.32	245.98	252.64	259.30	265.97	272.77	280.01	287.25	294.50	301.74	308.98	1.78
4	316.23	323.47	330.71	337.95	345.20	352.44	359.68	366.93	374.17	381.41	388.66	395.90	2.32
5	402.06	404.76	407.47	410.17	412.88	415.58	418.29	420.99	423.69	426.40	429.10	431.81	2.85
6	434.51	437.22	439.92	442.62	445.33	448.03	450.74	453.44	456.15	458.85	461.55	464.26	3.08
7	466.72	468.39	470.07	471.75	473.42	475.10	476.77	478.45	480.13	481.80	483.48	485.16	3.30
8	486.83	488.51	490.18	491.86	493.54	495.21							3.48

TANK 100 PERCENT FULL SOUNDING = 8 FT. 5 2/8 IN CAP. = 495.68 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.520 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

2 DB SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	12.13	17.72	23.32	28.91	34.50	40.09	45.69	51.28	56.87	62.46	68.06	73.65	0.08
1	79.24	84.84	90.43	96.02	101.61	107.21	112.80	118.39	123.99	129.58	135.17	140.80	0.52
2	149.14	158.11	167.08	176.06	185.03	194.00	202.97	211.95	220.92	229.89	238.86	247.84	0.96
3	256.81	265.78	274.75	283.72	292.70	301.67	310.76	319.87	328.98	338.09	347.19	356.30	1.48
4	365.41	375.22	385.25	395.28	405.31	415.34	425.38	435.41	445.44	455.47	465.50	475.53	2.00
5	485.70	495.98	506.25	516.53	526.80	537.08	547.36	555.39	559.43	563.47	567.52	571.56	2.53
6	575.60	579.64	583.68	587.73	591.77	595.81	599.85	603.90	607.94	611.98	616.05	620.11	2.93
7	624.17	628.24	632.30	636.36	640.43	644.49	648.55	652.15	654.14	656.13	658.12	660.11	3.15
8	662.10	664.09	666.09	668.08	670.07	672.06	674.05	676.04	678.04	680.03	682.03	684.03	3.35
9	686.02	688.02	690.01	692.01									3.51

TANK 100 PERCENT FULL SOUNDING = 9 FT. 3 INCHES CAP. = 692.18 S.W.LTON VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.171 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 DB SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	7564	8777	9989	11202	[illegible]	[illegible]	14839	16052	17264	18477	19689	20902	0.25
1	22114	23327	24539	25752	[illegible]	[illegible]	29516	31261	33005	34750	36494	38239	0.73
2	39983	41728	43472	45217	46961	48705	50450	52194	53939	55683	57428	59172	1.24
3	60917	62661	64406	66150	67895	69639	71420	73316	75213	77109	79006	80902	1.78
4	82799	84695	86592	88488	90385	92281	94178	96074	97971	99867	101764	103660	2.32
5	105273	105981	106689	107397	108106	108814	109522	110230	110938	111646	112354	113062	2.85
6	113770	114478	115186	115895	116603	117311	118019	118727	119435	120143	120851	121559	3.08
7	122203	122642	123081	123520	123959	124397	124836	125275	125714	126153	126592	127031	3.30
8	127469	127908	128347	128786	129225	129664							3.48

TANK 100 PERCENT FULL SOUNDING = 8 FT. 5 2/8 IN CAP. = 129786.56 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.520 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

2 DB SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2621	3754	4887	6021	7154	8287	9420	10553	11687	12820	13953	15086	0.07
1	16219	17353	18486	19619	20752	21885	23018	24152	25285	26418	27551	28692	0.46
2	30844	33108	35372	37636	39900	42164	44428	46692	48956	51220	53484	55748	0.85
3	58012	60276	62540	64804	67068	69332	71627	73926	76225	78524	80823	83122	1.34
4	85421	87949	90531	93114	95696	98278	100860	103443	106025	108607	111189	113771	1.85
5	116392	119040	121687	124335	126983	129630	132278	134455	135863	137271	138679	140087	2.37
6	141496	142904	144312	145720	147128	148536	149944	151352	152760	154170	155586	157002	2.78
7	158418	159834	161250	162666	164081	165497	166913	168109	168571	169033	169495	169957	3.07
8	170419	170882	171344	171806	172268	172730	173192	173654	174117	174581	175044	175508	3.28
9	175971	176435	176898	177361	177825	178288	178752	179215	179678	180142	180605	181069	3.42

TANK 100 PERCENT FULL SOUNDING = 9 FT. 11 2/8 IN CAP. = 181235.69 GALLONS VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.182 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 DB SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3.85	9.19	14.54	19.89	25.23	30.58	35.92	41.27	46.61	51.96	57.30	62.65	0.03
1	67.99	73.34	78.68	84.03	89.38	94.72	100.07	105.41	110.76	116.10	121.45	126.79	0.57
2	133.16	139.92	146.68	153.44	160.20	166.96	173.72	180.48	187.24	194.00	200.76	207.52	1.11
3	214.28	221.04	227.80	234.56	241.32	248.08	254.84	261.60	268.36	275.12	281.88	288.64	1.65
4	295.79	303.09	310.39	317.69	324.99	332.29	339.59	346.89	354.19	361.49	368.78	376.08	2.19
5	383.38	390.68	397.98	405.28	412.58	419.88	423.43	425.51	427.59	429.68	431.76	433.84	2.73
6	435.93	438.01	440.09	442.18	444.26	446.34	448.43	450.51	452.59	454.68	456.76	458.85	3.07
7	460.93	463.01	465.10	467.18	469.26	471.35	473.36	475.33	477.31	479.29	481.27	483.25	3.26
8	485.23	487.21	489.19	491.17	493.15	495.13							3.47

TANK 100 PERCENT FULL SOUNDING = 8 FT. 5 2/8 IN CAP. = 495.68 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

2 DB SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-70 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	10.01	14.34	18.67	22.99	27.32	31.65	35.98	40.31	44.63	48.96	53.29	57.62	0.07
1	61.94	66.27	70.60	74.93	79.26	83.58	87.91	92.24	96.57	100.90	105.22	109.58	0.46
2	117.80	126.45	135.09	143.74	152.39	161.03	169.68	178.33	186.97	195.62	204.27	212.91	0.85
3	221.56	230.21	238.85	247.50	256.15	264.79	273.56	282.34	291.12	299.90	308.68	317.46	1.34
4	326.24	335.90	345.76	355.62	365.48	375.34	385.21	395.07	404.93	414.79	424.65	434.52	1.85
5	444.53	454.64	464.75	474.86	484.97	495.08	505.20	513.51	518.89	524.27	529.64	535.02	2.37
6	540.40	545.78	551.16	556.53	561.91	567.29	572.67	578.04	583.42	588.81	594.21	599.62	2.78
7	605.03	610.44	615.84	621.25	626.66	632.07	637.47	642.04	643.81	645.57	647.34	649.10	3.07
8	650.87	652.63	654.40	656.16	657.92	659.69	661.45	663.22	664.99	666.76	668.53	670.30	3.28
9	672.07	673.84	675.61	677.38	679.15	680.92	682.69	684.46	686.23	688.00	689.77	691.54	3.42

TANK 100 PERCENT FULL SOUNDING = 9 FT. 11 2/8 IN CAP. = 692.18 S.W.LTON VCG = 3.55 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.182 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 61.067 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 DB SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1008	2407	3807	5207	6606	8006	9405	10805	12205	13604	15004	16404	0.03
1	17803	19203	20602	22002	23402	24801	26201	27601	29000	30400	31799	33199	0.57
2	34865	36635	38405	40176	41946	43716	45486	47256	49026	50796	52566	54336	1.11
3	56106	57876	59646	61416	63186	64956	66726	68496	70266	72037	73807	75577	1.65
4	77448	79360	81271	83182	85093	87005	88916	90827	92738	94650	96561	98472	2.19
5	100383	102295	104206	106117	108028	109940	110868	111413	111959	112504	113050	113595	2.73
6	114141	114686	115232	115777	116323	116869	117414	117960	118505	119051	119596	120142	3.07
7	120687	121233	121778	122324	122870	123415	123941	124459	124977	125496	126014	126532	3.26
8	127050	127569	128087	128605	129123	129641							3.47

TANK 100 PERCENT FULL SOUNDING = 8 FT. 5 2/8 IN CAP. = 129786.56 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 11

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WATERMAN LASH

SOUNDING TABLE

#3 DB SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	12134	13167	14199	15231	16263	17295	18327	19359	20391	21423	22455	23487	0.42
1	24519	26069	27784	29499	31214	32929	34644	36359	38074	39789	41505	43220	0.85
2	44935	46650	48365	50080	51795	53510	55225	56940	58655	60371	62086	63801	1.38
3	65516	67356	69237	71117	72998	74878	76759	78639	80520	82400	84281	86162	1.92
4	88042	89923	91803	93684	95564	97445	99325	100439	101307	102175	103043	103911	2.45
5	104779	105647	106515	107383	108251	109119	109987	110855	111723	112591	113459	114327	2.86
6	115195	116063	116931	117799	118667	119535	120403	120915	121313	121711	122109	122508	3.11
7	122906	123304	123702	124100	124499	124897	125295	125693	126091	126490	126888	127286	3.33
8	127684	128082	128481	128879	129277	129675							3.49

TANK 100 PERCENT FULL SOUNDING = 8 FT. 5 2/8 IN CAP. = 129786.56 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.980 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 DB SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	46.34	50.29	54.23	58.17	62.11	66.05	69.99	73.94	77.88	81.82	85.76	89.70	0.42
1	93.64	99.56	106.11	112.66	119.21	125.76	132.31	138.86	145.41	151.96	158.51	165.06	0.85
2	171.61	178.16	184.72	191.27	197.82	204.37	210.92	217.47	224.02	230.57	237.12	243.67	1.38
3	250.22	257.25	264.43	271.61	278.79	285.98	293.16	300.34	307.52	314.70	321.89	329.07	1.92
4	336.25	343.43	350.61	357.80	364.98	372.16	379.34	383.60	386.91	390.23	393.54	396.86	2.45
5	400.17	403.49	406.80	410.12	413.43	416.75	420.06	423.38	426.69	430.01	433.32	436.64	2.86
6	439.95	443.27	446.58	449.90	453.21	456.53	459.84	461.80	463.32	464.84	466.36	467.88	3.11
7	469.40	470.92	472.44	473.96	475.49	477.01	478.53	480.05	481.57	483.09	484.61	486.13	3.33
8	487.65	489.17	490.69	492.21	493.73	495.26							3.49

TANK 100 PERCENT FULL SOUNDING = 8 FT. 5 2/8 IN CAP. = 495.68 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.980 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 DB SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1008	2407	3807	5207	6606	8006	9405	10805	12205	13604	15004	16404	0.03
1	17803	19203	20602	22002	23402	24801	26201	27601	29000	30400	31799	33199	0.57
2	34865	36635	38405	40176	41946	43716	45486	47256	49026	50796	52566	54336	1.11
3	56106	57876	59646	61416	63186	64956	66726	68496	70266	72037	73807	75577	1.65
4	77448	79360	81271	83182	85093	87005	88916	90827	92738	94650	96561	98472	2.19
5	100383	102295	104206	106117	108028	109940	110868	111413	111959	112504	113050	113595	2.73
6	114141	114686	115232	115777	116323	116869	117414	117960	118505	119051	119596	120142	3.07
7	120687	121233	121778	122324	122870	123415	123941	124459	124977	125496	126014	126532	3.26
8	127050	127569	128087	128605	129123	129641							3.47

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 129786.56 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.440 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 DB SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3.85	9.19	14.54	19.89	25.23	30.58	35.92	41.27	46.61	51.96	57.30	62.65	0.03
1	67.99	73.34	78.68	84.03	89.38	94.72	100.07	105.41	110.76	116.10	121.45	126.79	0.57
2	133.16	139.92	146.68	153.44	160.20	166.96	173.72	180.48	187.24	194.00	200.76	207.52	1.11
3	214.28	221.04	227.80	234.56	241.32	248.08	254.84	261.60	268.36	275.12	281.88	288.64	1.65
4	295.79	303.09	310.39	317.67	324.99	332.29	339.59	346.89	354.19	361.49	368.78	376.08	2.19
5	383.38	390.68	397.98	405.28	412.58	419.88	423.43	425.51	427.59	429.68	431.76	433.84	2.73
6	435.93	438.01	440.09	442.18	444.26	446.34	448.43	450.51	452.59	454.68	456.76	458.85	3.07
7	460.93	463.01	465.10	467.18	469.26	471.35	473.36	475.33	477.31	479.29	481.27	483.25	3.26
8	485.23	487.21	489.19	491.17	493.15	495.13							3.47

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 495.68 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.440 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 DB SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	7564	8777	9989	11202	12414	13627	14839	16052	17264	18477	19689	20902	0.25
1	22114	23327	24539	25752	26964	28177	29516	31261	33005	34750	36494	38239	0.73
2	39983	41728	43472	45217	46961	48705	50450	52194	53939	55683	57428	59172	1.24
3	60917	62661	64406	66150	67895	69639	71420	73316	75213	77109	79006	80902	1.78
4	82799	84695	86592	88488	90385	92281	94178	96074	97971	99867	101764	103660	2.32
5	105273	105981	106689	107397	108106	108814	109522	110230	110938	111646	112354	113062	2.85
6	113770	114478	115186	115895	116603	117311	118019	118727	119435	120143	120851	121559	3.08
7	122203	122642	123081	123520	123959	124397	124836	125275	125714	126153	126592	127031	3.30
8	127469	127908	128347	128786	129225	129664							3.48

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 129786.56 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.520 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.440 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 DB SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	28.89	33.52	38.15	42.78	47.41	52.04	56.67	61.31	65.94	70.57	75.20	79.83	0.25
1	84.46	89.09	93.72	98.35	102.98	107.61	112.73	119.39	126.05	132.72	139.38	146.04	0.73
2	152.70	159.37	166.03	172.69	179.35	186.02	192.68	199.34	206.00	212.67	219.33	225.99	1.24
3	232.65	239.32	245.98	252.64	259.30	265.97	272.77	280.01	287.25	294.50	301.74	308.98	1.78
4	316.23	323.47	330.71	337.95	345.20	352.44	359.68	366.93	374.17	381.41	388.66	395.90	2.32
5	402.06	404.76	407.47	410.17	412.88	415.58	418.29	420.99	423.69	426.40	429.10	431.81	2.85
6	434.51	437.22	439.92	442.62	445.33	448.03	450.74	453.44	456.15	458.85	461.55	464.26	3.08
7	466.72	468.39	470.07	471.75	473.42	475.10	476.77	478.45	480.13	481.80	483.48	485.16	3.30
8	486.83	488.51	490.18	491.86	493.54	495.21							3.48

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 495.68 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.520 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.440 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 DB SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	12134	13167	14199	15231	16263	17295	18327	19359	20391	21423	22455	23487	0.42
1	24519	26069	27784	29499	31214	32929	34644	36359	38074	39789	41505	43220	0.85
2	44935	46650	48365	50080	51795	53510	55225	56940	58655	60371	62086	63801	1.38
3	65516	67356	69237	71117	72998	74878	76759	78639	80520	82400	84281	86162	1.92
4	88042	89923	91803	93684	95564	97445	99325	100439	101307	102175	103043	103911	2.45
5	104779	105647	106515	107383	108251	109119	109987	110855	111723	112591	113459	114327	2.86
6	115195	116063	116931	117799	118667	119535	120403	120915	121313	121711	122109	122508	3.11
7	122906	123304	123702	124100	124499	124897	125295	125693	126091	126490	126888	127286	3.33
8	127684	128082	128481	128879	129277	129675							3.49

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 129786.56 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.980 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.440 FT.

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C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 DB SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 70-76 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	46.34	50.29	54.23	58.17	62.11	66.05	69.99	73.94	77.88	81.82	85.76	89.70	0.42
1	93.64	99.56	106.11	112.66	119.21	125.76	132.31	138.86	145.41	151.96	158.51	165.06	0.85
2	171.61	178.16	184.72	191.27	197.82	204.37	210.92	217.47	224.02	230.57	237.12	243.67	1.38
3	250.22	257.25	264.43	271.61	278.79	285.98	293.16	300.34	307.52	314.70	321.89	329.07	1.92
4	336.25	343.43	350.61	357.80	364.98	372.16	379.34	383.60	386.91	390.23	393.54	396.86	2.45
5	400.17	403.49	406.80	410.12	413.43	416.75	420.06	423.38	426.69	430.01	433.32	436.64	2.86
6	439.95	443.27	446.58	449.90	453.21	456.53	459.84	461.80	463.32	464.84	466.36	467.88	3.11
7	469.40	470.92	472.44	473.96	475.49	477.01	478.53	480.05	481.57	483.09	484.61	486.13	3.33
8	487.65	489.17	490.69	492.21	493.73	495.26							3.49

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 495.68 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.980 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.440 FT.

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WATERMAN LASH

SOUNDING TABLE

#4 DB SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3575	5437	7299	9160	11022	12884	14746	16608	18470	20332	22193	24055	0.09
1	25917	27779	29641	31503	33365	35227	37088	38950	40812	42674	44536	46943	0.63
2	49397	51852	54306	56761	59215	61670	64124	66579	69033	71488	73942	76397	1.18
3	78851	81305	83760	86214	88669	91123	93578	96032	98487	100941	103396	106086	1.73
4	108796	111506	114217	116927	119638	122348	125058	127769	130479	133190	135900	138610	2.28
5	141321	144031	146742	149452	152162	153020	153716	154412	155108	155804	156500	157196	2.83
6	157893	158589	159285	159981	160677	161373	162069	162766	163462	164158	164854	165550	3.13
7	166246	166942	167639	168335	169031	169710	170388	171065	171743	172420	173098	173776	3.30
8	174453	175131	175809	176486	177164								3.50

TANK 100 PERCENT FULL SOUNDING = 8 FT. 4 INCHES CAP. = 177218.13 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

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C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 DB SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	13.65	20.76	27.87	34.99	42.10	49.21	56.32	63.43	70.54	77.65	84.76	91.87	0.09
1	98.98	106.09	113.20	120.32	127.43	134.54	141.65	148.76	155.87	162.98	170.09	179.28	0.63
2	188.66	198.03	207.41	216.78	226.15	235.53	244.90	254.28	263.65	273.03	282.40	291.77	1.18
3	301.15	310.52	319.90	329.27	338.64	348.02	357.39	366.77	376.14	385.51	394.89	405.16	1.73
4	415.51	425.86	436.22	446.57	456.92	467.27	477.62	487.97	498.33	508.68	519.03	529.38	2.28
5	539.73	550.08	560.44	570.79	581.14	584.41	587.07	589.73	592.39	595.05	597.71	600.36	2.83
6	603.02	605.68	608.34	611.00	613.66	616.32	618.98	621.63	624.29	626.95	629.61	632.27	3.13
7	634.93	637.59	640.24	642.90	645.56	648.16	650.74	653.33	655.92	658.51	661.10	663.68	3.30
8	666.27	668.86	671.45	674.04	676.62								3.50

TANK 100 PERCENT FULL SOUNDING = 8 FT. 4 INCHES CAP. = 676.83 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 DB SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2860	4320	5781	7241	8702	10162	11623	13083	14544	16004	17465	18925	0.07
1	20386	21846	23307	24767	26228	27688	29149	30609	32070	33530	34991	37343	0.53
2	39734	42125	44516	46908	49299	51690	54081	56472	58863	61255	63646	66037	0.99
3	68428	70819	73210	75601	77593	80384	82775	85166	87557	89948	92340	95601	1.54
4	97673	100346	103019	105692	108365	111038	113711	116383	119056	121729	124402	127075	2.09
5	129748	132421	135093	137766	140439	141565	142622	143680	144738	145796	146854	147912	2.64
6	148970	150027	151085	152143	153201	154259	155316	156374	157432	158490	159548	160606	2.98
7	161664	162721	163779	164837	165895	166472	167028	167585	168141	168697	169253	169809	3.21
8	170366	170922	171478	172034	172591	173147	173703	174259	174816	175372	175928	176484	3.40
9	177040												3.57

TANK 100 PERCENT FULL SOUNDING = 9 FT. 0 2/8 IN CAP. = 177218.13 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.163 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 DB SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	10.92	16.50	22.06	27.66	33.23	38.81	44.39	49.97	55.55	61.12	66.70	72.28	0.07
1	77.86	83.44	89.01	94.59	100.17	105.75	111.33	116.90	122.48	128.06	133.64	142.62	0.53
2	151.75	160.88	170.02	179.15	188.28	197.41	206.55	215.68	224.81	233.94	243.08	252.21	0.99
3	261.34	270.47	279.60	288.74	297.87	307.00	316.13	325.27	334.40	343.53	352.66	362.83	1.54
4	373.03	383.24	393.45	403.66	413.87	424.08	434.28	444.49	454.70	464.91	475.12	485.32	2.09
5	495.53	505.74	515.95	526.16	536.37	540.66	544.70	548.74	552.78	556.82	560.86	564.90	2.64
6	568.94	572.98	577.02	581.06	585.10	589.14	593.18	597.22	601.26	605.30	609.34	613.38	2.98
7	617.43	621.47	625.51	629.55	633.59	635.79	637.91	640.04	642.16	644.29	646.41	648.54	3.21
8	650.66	652.78	654.91	657.03	659.16	661.28	663.41	665.53	667.66	669.78	671.90	674.03	3.40
9	676.15												3.57

TANK 100 PERCENT FULL SOUNDING = 9 FT. 0 2/8 IN CAP. = 676.83 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.163 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 DB SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2165	3250	4334	5419	6504	7588	8673	9757	10842	11927	13011	14096	0.06
1	15180	16265	17350	18434	19519	20603	21688	22773	23857	24942	26027	28335	0.45
2	30649	32962	35276	37589	39903	42216	44530	46843	49157	51470	53784	56097	0.86
3	58411	60724	63038	65351	67665	69978	72292	74605	76919	79232	81546	84175	1.39
4	86806	89436	92067	94698	97328	99959	102589	105220	107851	110481	113112	115742	1.92
5	118373	121004	123634	126265	128895	130310	131720	133131	134541	135951	137361	138771	2.46
6	140182	141592	143002	144412	145823	147233	148643	150053	151464	152874	154284	155694	2.83
7	157105	158515	159925	161335	162745	163255	163762	164269	164775	165282	165789	166295	3.12
8	166802	167309	167815	168322	168829	169335	169842	170349	170855	171362	171868	172375	3.31
9	172882	173388	173895	174402	174908	175415	175922	176428	176935				3.46

TANK 100 PERCENT FULL SOUNDING = 9 FT. 8 4/8 IN CAP. = 177218.13 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.166 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 DB SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	8.27	12.41	16.55	20.70	24.84	28.98	33.12	37.27	41.41	45.55	49.69	53.83	0.06
1	57.98	62.12	66.26	70.40	74.55	78.69	82.83	86.97	91.12	95.26	99.40	108.22	0.45
2	117.05	125.89	134.73	143.56	152.40	161.23	170.07	178.90	187.74	196.58	205.41	214.25	0.86
3	223.08	231.92	240.75	249.59	258.43	267.26	276.10	284.93	293.77	302.60	311.44	321.48	1.39
4	331.53	341.57	351.62	361.67	371.72	381.76	391.81	401.86	411.90	421.95	432.00	442.04	1.92
5	452.09	462.14	472.18	482.23	492.28	497.68	503.07	508.45	513.84	519.22	524.61	530.00	2.46
6	535.38	540.77	546.15	551.54	556.93	562.31	567.70	573.08	578.47	583.86	589.24	594.63	2.83
7	600.01	605.40	610.79	616.17	621.56	623.50	625.44	627.37	629.31	631.24	633.18	635.11	3.12
8	637.05	638.98	640.92	642.85	644.79	646.72	648.66	650.59	652.53	654.46	656.40	658.33	3.31
9	660.27	662.20	664.14	666.07	668.01	669.94	671.88	673.81	675.75				3.46

TANK 100 PERCENT FULL SOUNDING = 9 FT. 8 4/8 IN CAP. = 676.83 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.166 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 DB SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3575	5437	7299	9160	11022	12884	14746	16608	18470	20332	22193	24055	0.09
1	25917	27779	29641	31503	33365	35227	37088	38950	40812	42674	44536	46943	0.63
2	49397	51852	54306	56761	59215	61670	64124	66579	69033	71488	73942	76397	1.18
3	78851	81305	83760	86214	88669	91123	93578	96032	98487	100941	103396	106086	1.73
4	108796	111506	114217	116927	119638	122348	125058	127769	130479	133190	135900	138610	2.28
5	141321	144031	146742	149452	152162	153020	153716	154412	155108	155804	156500	157196	2.83
6	157893	158589	159285	159981	160677	161373	162069	162766	163462	164158	164854	165550	3.13
7	166246	166942	167639	168335	169031	169710	170388	171065	171743	172420	173098	173776	3.30
8	174453	175131	175809	176486	177164								3.50

TANK 100 PERCENT FULL SOUNDING = 8 FT. 4 INCHES CAP. = 177218.13 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

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WATERMAN LASH

SOUNDING TABLE

4 DB SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	13.65	20.76	27.87	34.99	42.10	49.21	56.32	63.43	70.54	77.65	84.76	91.87	0.09
1	98.98	106.09	113.20	120.32	127.43	134.54	141.65	148.76	155.87	162.98	170.09	179.28	0.63
2	188.66	198.03	207.41	216.78	226.15	235.53	244.90	254.28	263.65	273.03	282.40	291.77	1.18
3	301.15	310.52	319.90	329.27	338.64	348.02	357.39	366.77	376.14	385.51	394.89	405.16	1.73
4	415.51	425.86	436.22	446.57	456.92	467.27	477.62	487.97	498.33	508.68	519.03	529.38	2.28
5	539.73	550.08	560.44	570.79	581.14	584.41	587.07	589.73	592.39	595.05	597.71	600.36	2.83
6	603.02	605.68	608.34	611.00	613.66	616.32	618.98	621.63	624.29	626.95	629.61	632.27	3.13
7	634.93	637.59	640.24	642.90	645.56	648.16	650.74	653.33	655.92	658.51	661.10	663.68	3.30
8	666.27	668.86	671.45	674.04	676.62								3.50

TANK 100 PERCENT FULL SOUNDING = 8 FT. 4 INCHES CAP. = 676.83 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.160 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.920 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 13

97

SOUNDING TABLE

WATERMAN LASH — 4 DB SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2760	4220	5681	7141	8602	10062	11523	12983	14444	15904	17365	18825	0.07
1	20286	21746	23207	24667	26128	27588	29049	30509	31970	33430	34891	37179	0.52
2	39570	41962	44353	46744	49135	51526	53917	56308	58700	61091	63482	65873	0.99
3	68264	70655	73047	75438	77829	80220	82611	85002	87393	89785	92176	94818	1.54
4	97490	100163	102836	105509	108182	110855	113528	116200	118873	121546	124219	126892	2.09
5	129565	132238	134910	137583	140256	141492	142550	143608	144666	145724	146781	147839	2.63
6	148897	149955	151013	152071	153128	154186	155244	156302	157360	158418	159475	160533	2.97
7	161591	162649	163707	164765	165822	166434	166990	167546	168103	168659	169215	169771	3.20
8	170328	170884	171440	171996	172553	173109	173665	174221	174777	175334	175890	176446	3.39
9	177002												3.56

TANK 100 PERCENT FULL SOUNDING = 9 FT. 0 3/8 IN. CAP. = 177218.13 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. — STRIKING PLATE 0.157 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 11.920 FT. — SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 4 DB SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	10.54	16.12	21.70	27.27	32.85	38.43	44.01	49.59	55.16	60.74	66.32	71.90	0.07
1	77.48	83.05	88.63	94.21	99.79	105.37	110.94	116.52	122.10	127.68	133.25	141.99	0.52
2	151.13	160.26	169.39	178.52	187.66	196.79	205.92	215.05	224.19	233.32	242.45	251.58	0.99
3	260.71	269.85	278.98	288.11	297.24	306.38	315.51	324.64	333.77	342.91	352.04	362.13	1.54
4	372.34	382.54	392.75	402.96	413.17	423.38	433.58	443.79	454.00	464.21	474.42	484.63	2.09
5	494.83	505.04	515.25	525.46	535.67	540.39	544.43	548.47	552.51	556.55	560.59	564.63	2.63
6	568.67	572.71	576.75	580.79	584.83	588.87	592.91	596.95	600.99	605.03	609.07	613.11	2.97
7	617.15	621.19	625.23	629.27	633.31	635.64	637.77	639.89	642.02	644.14	646.27	648.39	3.20
8	650.51	652.64	654.76	656.89	659.01	661.14	663.26	665.39	667.51	669.63	671.76	673.88	3.39
9	676.01												3.56

TANK 100 PERCENT FULL SOUNDING = 9 FT. 0 3/8 IN CAP. = 676.83 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. — STRIKING PLATE 0.157 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 11.920 FT. — SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 4 DB SW BALLAST TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2017	3101	4186	5271	6355	7440	8524	9609	10694	11778	12863	13947	0.06
1	15032	16117	17201	18286	19370	20455	21540	22624	23709	24793	25878	28019	0.44
2	30332	32646	34959	37273	39586	41900	44213	46527	48840	51154	53467	55780	0.85
3	58094	60407	62721	65034	67348	69661	71975	74288	76602	78915	81229	83815	1.38
4	86445	89076	91707	94337	96968	99598	102229	104860	107490	110121	112751	115382	1.91
5	118013	120643	123274	125904	128535	130117	131527	132937	134348	135758	137168	138578	2.46
6	139989	141399	142809	144219	145630	147040	148450	149860	151270	152681	154091	155501	2.83
7	156911	158322	159732	161142	162552	163186	163693	164199	164706	165213	165719	166226	3.12
8	166733	167239	167746	168253	168759	169266	169772	170279	170786	171292	171799	172306	3.31
9	172812	173319	173826	174332	174839	175346	175852	176359	176866				3.46

TANK 100 PERCENT FULL SOUNDING = 9 FT. 8 5/8 IN CAP. = 177218.13 GALLONS VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. — STRIKING PLATE 0.155 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 11.920 FT. — SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 4 DB SW BALLAST TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 76-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	7.70	11.84	15.99	20.13	24.27	28.41	32.56	36.70	40.84	44.98	49.13	53.27	0.06
1	57.41	61.55	65.69	69.84	73.98	78.12	82.26	86.41	90.55	94.69	98.83	107.01	0.44
2	115.84	124.68	133.52	142.35	151.19	160.02	168.86	177.69	186.53	195.37	204.20	213.04	0.85
3	221.87	230.71	239.54	248.38	257.22	266.05	274.89	283.72	292.56	301.39	310.23	320.11	1.38
4	330.15	340.20	350.25	360.29	370.34	380.39	390.43	400.48	410.53	420.57	430.62	440.67	1.91
5	450.71	460.76	470.81	480.85	490.90	496.94	502.33	507.71	513.10	518.49	523.87	529.26	2.46
6	534.64	540.03	545.42	550.80	556.19	561.57	566.96	572.35	577.73	583.12	588.50	593.89	2.83
7	599.28	604.66	610.05	615.43	620.82	623.24	625.17	627.11	629.04	630.98	632.91	634.85	3.12
8	636.78	638.72	640.65	642.59	644.52	646.46	648.39	650.33	652.26	654.20	656.13	658.07	3.31
9	660.00	661.94	663.87	665.81	667.74	669.68	671.61	673.55	675.48				3.46

TANK 100 PERCENT FULL SOUNDING = 9 FT. 8 5/8 IN CAP. = 676.83 S.W.LTON VCG = 3.57 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. — STRIKING PLATE 0.155 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 11.920 FT. — SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	308	736	1164	1591	2019	2447	2875	3302	3730	4158	4586	5013	8.53
1	5441	5869	6297	6724	7152	7580	8008	8436	8863	9291	9719	10147	9.04
2	10609	11085	11561	12037	12514	12990	13466	13942	14418	14894	15370	15846	9.55
3	16322	16798	17275	17751	18227	18703	19179	19655	20131	20607	21083	21559	10.08
4	22062	22574	23087	23599	24112	24624	25136	25649	26161	26674	27186	27699	10.60
5	28211	28724	29236	29749	30261	30774	31286	31798	32311	32823	33336	33848	11.14
6	34381	34921	35461	36002	36542	37082	37623	38163	38703	39244	39784	40324	11.67
7	40865	41405	41945	42486	43026	43566	44107	44647	45187	45728	46268	46808	12.20
8	47364	47926	48487	49049	49611	50173	50735	51296	51858	52420	52982	53543	12.74
9	54105	54667	55229	55790	56352	56914	57476	58038	58599	59161	59723	60285	13.27
10	60858	61437	62015	62593	63172	63750	64328	64906	65485	66063	66641	67220	13.81
11	67798	68376	68954	69533	70111	70689	71268	71846	72424	73003	73581	74159	14.34
12	74747	75338	75929	76520	77111	77702	78293	78884	79475	80066	80657	81248	14.88
13	81839	82430	83020	83612	84203	84793	85385	85975	86566	87158	87748	88339	15.41
14	88937	89538	90139	90739	91340	91941	92542	93142	93743	94344	94944	95545	15.94
15	96146	96746	97347	97948	98548	99149	99750	100350	100951	101552	102152	102753	16.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT. — SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	103359	103968	104576	105185	105793	106401	107010	107618	108227	108835	109443	110052	17.01
17	110660	111269	111877	112486	113094	113702	114311	114919	115528	116136	116745	117353	17.54
18	117966	118581	119195	119810	120425	121040	121655	122269	122884	123499	124114	124728	18.07
19	125343	125958	126572	127187	127802	128417	129032	129646	130261	130876	131491	132105	18.59
20	132724	133344	133964	134584	135204	135824	136445	137065	137685	138305	138925	139545	19.12
21	140165	140785	141405	142025	142645	143265	143886	144506	145126	145746	146366	146986	19.65
22	147610	148234	148859	149484	150109	150733	151358	151983	152608	153233	153857	154482	20.17
23	155107	155732	156357	156981	157606	158231	158856	159481	160105	160730	161355	161980	20.70
24	162608	163237	163866	164495	165124	165753	166382	167011	167640	168269	168898	169527	21.23
25	170156	170785	171414	172043	172672	173301	173930	174559	175188	175817	176446	177075	21.75
26	177707	178340	178973	179607	180240	180873	181506	182139	182772	183405	184038	184671	22.27
27	185304	185937	186570	187203	187836	188469	189102	189735	190368	191001	191634	192267	22.80
28	192903	193540	194177	194814	195451	196088	196725	197362	197999	198636	199273	199910	23.32
29	200547	201184	201821	202458	203095	203732	204369	205006	205643	206280	206917	207554	23.84
30	208194	208835	209476	210117	210758	211399	212040	212681	213322	213963	214604	215244	24.37
31	215885	216526	217167	217808	218449	219090	219731	220372	221013	221654	222295	222936	24.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT. — SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	223579	224224	224868	225513	226158	226802	227447	228092	228736	229381	230026	230670	25.41
33	231315	231960	232604	233249	233894	234538	235183	235828	236472	237117	237762	238406	25.93
34	239053	239702	240350	240998	241646	242295	242943	243591	244239	244888	245536	246184	26.46
35	246832	247481	248129	248777	249425	250073	250722	251370	252018	252666	253315	253963	26.98
36	254614	255265	255917	256568	257220	257871	258523	259175	259826	260478	261129	261781	27.50
37	262432	263084	263736	264387	265039	265690	266342	266993	267645	268297	268948	269600	28.02
38	270254	270908	271563	272217	272872	273527	274181	274836	275490	276145	276800	277454	28.55
39	278109	278764	279418	280073	280728	281382	282037	282691	283346	284001	284655	285310	29.07
40	285966	286624	287281	287938	288595	289252	289910	290567	291224	291881	292538	293196	29.59
41	293853	294510	295167	295825	296482	297139	297636	298070	298504	298938	299373	299807	30.11
42	300241	300675	301109	301544	301978	302412	302846	303281	303715	304149	304583	305017	30.54
43	305452	305886	306320	306754	307189	307623	308059	308496	308933	309369	309806	310243	30.89
44	310680	311117	311554	311990	312427	312864	313301	313738	314175	314612	315048	315485	31.25
45	315922	316359	316796	317233	317669	318106	318545	318984	319424	319863	320302	320742	31.61
46	321181	321621	322060	322499	322939	323378	323817	324257	324696	325136	325575	326014	31.98
47	326454	326893	327332	327772	328211	328650	329091	329533	329975	330416	330858	331299	32.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT. — SHEET 3 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	331741	332182	332624	333066	333507	333949	334390	334832	335273	335715	336156	336598	32.73
49	337040	337481	337923	338364	338806	339247	339691	340134	340578	341022	341465	341909	33.11
50	342353	342796	343240	343684	344128	344571	345015	345459	345902	346346	346790	347234	33.50
51	347677	348121	348565	349008	349452	349896	350180	350403	350625				33.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT. — SHEET 4 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 14

105

SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.18	2.81	4.44	6.08	7.71	9.34	10.98	12.61	14.25	15.88	17.51	19.15	8.53
1	20.78	22.41	24.05	25.68	27.32	28.95	30.58	32.22	33.85	35.48	37.12	38.75	9.04
2	40.52	42.34	44.16	45.97	47.79	49.61	51.43	53.25	55.06	56.88	58.70	60.52	9.55
3	62.34	64.16	65.97	67.79	69.61	71.43	73.25	75.07	76.88	78.70	80.52	82.34	10.08
4	84.26	86.22	88.17	90.13	92.09	94.04	96.00	97.96	99.92	101.87	103.83	105.79	10.60
5	107.74	109.70	111.66	113.62	115.57	117.53	119.49	121.44	123.40	125.36	127.32	129.27	11.14
6	131.31	133.37	135.43	137.50	139.56	141.63	143.69	145.75	147.82	149.88	151.94	154.01	11.67
7	156.07	158.13	160.20	162.26	164.32	166.39	168.45	170.52	172.58	174.64	176.71	178.77	12.20
8	180.89	183.04	185.18	187.33	189.47	191.62	193.77	195.91	198.06	200.20	202.35	204.49	12.74
9	206.64	208.78	210.93	213.07	215.22	217.37	219.51	221.66	223.80	225.95	228.09	230.24	13.27
10	232.43	234.64	236.85	239.06	241.26	243.47	245.68	247.89	250.10	252.31	254.52	256.72	13.81
11	258.93	261.14	263.35	265.56	267.77	269.98	272.19	274.39	276.60	278.81	281.02	283.23	14.34
12	285.47	287.73	289.99	292.24	294.50	296.76	299.02	301.27	303.53	305.79	308.04	310.30	14.88
13	312.56	314.81	317.07	319.33	321.59	323.84	326.10	328.36	330.61	332.87	335.13	337.39	15.41
14	339.67	341.96	344.26	346.55	348.85	351.14	353.43	355.73	358.02	360.32	362.61	364.90	15.94
15	367.20	369.49	371.79	374.08	376.38	378.67	380.96	383.26	385.55	387.85	390.14	392.43	16.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 1 OF 4

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	394.75	397.07	399.40	401.72	404.04	406.37	408.69	411.02	413.34	415.66	417.99	420.31	17.01
17	422.63	424.96	427.28	429.60	431.93	434.25	436.58	438.90	441.22	443.55	445.87	448.19	17.54
18	450.54	452.88	455.23	457.58	459.93	462.27	464.62	466.97	469.32	471.67	474.01	476.36	18.07
19	478.71	481.06	483.41	485.75	488.10	490.45	492.80	495.15	497.49	499.84	502.19	504.54	18.59
20	506.90	509.27	511.64	514.00	516.37	518.74	521.11	523.48	525.84	528.21	530.58	532.95	19.12
21	535.32	537.69	540.05	542.42	544.79	547.16	549.53	551.90	554.26	556.63	559.00	561.37	19.65
22	563.75	566.14	568.52	570.91	573.29	575.68	578.07	580.45	582.84	585.23	587.61	590.00	20.17
23	592.38	594.77	597.16	599.54	601.93	604.32	606.70	609.09	611.47	613.86	616.25	618.63	20.70
24	621.03	623.43	625.84	628.24	630.64	633.04	635.45	637.85	640.25	642.65	645.05	647.46	21.23
25	649.86	652.26	654.66	657.07	659.47	661.87	664.27	666.68	669.08	671.48	673.88	676.29	21.75
26	678.70	681.12	683.54	685.95	688.37	690.79	693.21	695.62	698.04	700.46	702.88	705.29	22.27
27	707.71	710.13	712.55	714.97	717.38	719.80	722.22	724.64	727.05	729.47	731.89	734.31	22.80
28	736.74	739.17	741.60	744.03	746.47	748.90	751.33	753.77	756.20	758.63	761.06	763.50	23.32
29	765.93	768.36	770.80	773.23	775.66	778.09	780.53	782.96	785.39	787.83	790.26	792.69	23.84
30	795.14	797.58	800.03	802.48	804.93	807.37	809.82	812.27	814.72	817.17	819.61	822.06	24.37
31	824.51	826.96	829.40	831.85	834.30	836.75	839.20	841.64	844.09	846.54	848.99	851.44	24.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 2 OF 4

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	853.89	856.36	858.82	861.28	863.74	866.20	868.67	871.13	873.59	876.05	878.51	880.98	25.41
33	883.44	885.90	888.36	890.82	893.29	895.75	898.21	900.67	903.13	905.60	908.06	910.52	25.93
34	912.99	915.47	917.94	920.42	922.90	925.37	927.85	930.32	932.80	935.27	937.75	940.23	26.46
35	942.70	945.18	947.65	950.13	952.60	955.08	957.56	960.03	962.51	964.98	967.46	969.93	26.98
36	972.42	974.91	977.40	979.89	982.37	984.86	987.35	989.84	992.33	994.82	997.30	999.79	27.50
37	1002.28	1004.77	1007.26	1009.75	1012.24	1014.72	1017.21	1019.70	1022.19	1024.68	1027.17	1029.65	28.02
38	1032.15	1034.65	1037.15	1039.65	1042.15	1044.65	1047.15	1049.65	1052.15	1054.65	1057.15	1059.65	28.55
39	1062.15	1064.65	1067.15	1069.65	1072.15	1074.65	1077.15	1079.65	1082.15	1084.65	1087.15	1089.65	29.07
40	1092.16	1094.67	1097.18	1099.69	1102.20	1104.71	1107.22	1109.73	1112.24	1114.75	1117.26	1119.77	29.59
41	1122.28	1124.79	1127.30	1129.81	1132.32	1134.83	1136.73	1138.39	1140.05	1141.70	1143.36	1145.02	30.11
42	1146.68	1148.34	1150.00	1151.66	1153.31	1154.97	1156.63	1158.29	1159.95	1161.61	1163.26	1164.92	30.54
43	1166.58	1168.24	1169.90	1171.56	1173.21	1174.87	1176.54	1178.21	1179.87	1181.54	1183.21	1184.88	30.89
44	1186.55	1188.22	1189.89	1191.55	1193.22	1194.89	1196.56	1198.23	1199.90	1201.56	1203.23	1204.90	31.25
45	1206.57	1208.24	1209.91	1211.57	1213.24	1214.91	1216.59	1218.26	1219.94	1221.62	1223.30	1224.98	31.61
46	1226.65	1228.33	1230.01	1231.69	1233.37	1235.04	1236.72	1238.40	1240.08	1241.76	1243.44	1245.11	31.98
47	1246.79	1248.47	1250.15	1251.83	1253.50	1255.18	1256.87	1258.55	1260.24	1261.93	1263.61	1265.30	32.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 3 OF 4

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1266.98	1268.67	1270.36	1272.04	1273.73	1275.42	1277.10	1278.79	1280.48	1282.16	1283.85	1285.53	32.73
49	1287.22	1288.91	1290.59	1292.28	1293.97	1295.65	1297.35	1299.04	1300.73	1302.43	1304.12	1305.82	33.11
50	1307.51	1309.21	1310.90	1312.60	1314.29	1315.99	1317.68	1319.38	1321.07	1322.76	1324.46	1326.15	33.50
51	1327.85	1329.54	1331.24	1332.93	1334.63	1336.32	1337.41	1338.26	1339.11				33.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 4 OF 4

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	307	688	1069	1449	1830	2210	2591	2972	3352	3733	4113	4494	8.53
1	4875	5255	5636	6016	6397	6778	7158	7539	7919	8300	8681	9061	8.99
2	9515	9986	10457	10928	11399	11870	12341	12812	13284	13755	14226	14697	9.45
3	15168	15639	16110	16581	17052	17523	17994	18465	18936	19408	19879	20350	9.98
4	20851	21360	21868	22377	22885	23394	23902	24411	24919	25428	25937	26445	10.50
5	26954	27462	27971	28479	28988	29496	30005	30514	31022	31531	32039	32548	11.03
6	33079	33617	34154	34691	35228	35766	36303	36840	37378	37915	38452	38989	11.56
7	39527	40064	40601	41138	41676	42213	42750	43287	43825	44362	44899	45436	12.09
8	45991	46551	47110	47670	48229	48788	49348	49907	50466	51026	51585	52144	12.63
9	52704	53263	53823	54382	54941	55501	56060	56620	57179	57738	58298	58857	13.16
10	59430	60007	60583	61159	61736	62312	62889	63465	64042	64618	65194	65771	13.70
11	66347	66924	67500	68077	68653	69229	69806	70382	70959	71535	72112	72688	14.23
12	73275	73865	74454	75044	75633	76223	76812	77402	77991	78581	79170	79760	14.77
13	80350	80939	81528	82118	82708	83297	83887	84476	85066	85655	86245	86834	15.30
14	87432	88031	88631	89230	89830	90429	91029	91628	92228	92827	93427	94026	15.83
15	94626	95225	95825	96425	97024	97623	98223	98822	99422	100022	100621	101220	16.36

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 1 OF 4

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	101826	102434	103041	103649	104256	104864	105471	106079	106686	107293	107901	108508	16.90
17	109116	109723	110331	110938	111546	112153	112760	113368	113975	114583	115190	115798	17.43
18	116410	117024	117638	118252	118866	119480	120094	120708	121322	121936	122549	123163	17.95
19	123777	124391	125005	125619	126233	126847	127461	128075	128689	129303	129916	130530	18.48
20	131149	131768	132387	133007	133626	134245	134865	135484	136103	136723	137342	137961	19.01
21	138581	139200	139819	140439	141058	141677	142297	142916	143535	144155	144774	145393	19.54
22	146017	146641	147265	147889	148513	149137	149761	150385	151009	151633	152257	152881	20.06
23	153506	154130	154754	155378	156002	156626	157250	157874	158498	159122	159746	160371	20.59
24	160998	161627	162255	162883	163512	164140	164768	165397	166025	166654	167282	167910	21.11
25	168539	169167	169796	170424	171052	171681	172309	172938	173566	174194	174823	175451	21.64
26	176083	176715	177347	177980	178612	179245	179877	180509	181142	181774	182407	183039	22.16
27	183672	184304	184936	185569	186201	186833	187466	188098	188731	189363	189995	190628	22.68
28	191263	191900	192536	193173	193809	194445	195082	195718	196354	196991	197627	198263	23.21
29	198900	199536	200172	200809	201445	202081	202718	203354	203990	204627	205263	205900	23.73
30	206539	207179	207820	208460	209100	209740	210381	211021	211661	212302	212942	213582	24.25
31	214223	214863	215503	216143	216784	217424	218064	218705	219345	219985	220625	221266	24.78

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 2 OF 4

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	221909	222553	223197	223841	224485	225129	225773	226417	227061	227705	228349	228993	25.30
33	229637	230281	230925	231569	232213	232857	233502	234146	234789	235434	236078	236722	25.82
34	237369	238016	238664	239311	239959	240607	241254	241902	242549	243197	243845	244492	26.34
35	245140	245788	246435	247083	247730	248378	249026	249673	250321	250969	251616	252264	26.87
36	252914	253565	254216	254867	255518	256169	256820	257471	258122	258773	259424	260075	27.39
37	260726	261377	262028	262679	263330	263981	264632	265283	265934	266585	267236	267887	27.91
38	268541	269195	269849	270503	271157	271811	272465	273119	273773	274427	275081	275735	28.43
39	276389	277044	277698	278352	279006	279660	280314	280968	281622	282276	282930	283584	28.96
40	284240	284897	285554	286210	286867	287524	288180	288837	289494	290150	290807	291464	29.48
41	292120	292777	293434	294090	294747	295404	295901	296361	296821	297280	297740	298199	30.00
42	298659	299119	299578	300038	300498	300957	301417	301876	302336	302796	303255	303715	30.43
43	304175	304634	305094	305554	306013	306473	306914	307350	307786	308223	308659	309095	30.80
44	309532	309968	310405	310841	311277	311714	312150	312586	313023	313459	313895	314332	31.17
45	314768	315205	315641	316077	316514	316950	317388	317827	318266	318705	319144	319583	31.53
46	320022	320461	320900	321339	321777	322216	322655	323094	323533	323972	324411	324850	31.89
47	325289	325728	326167	326605	327044	327483	327924	328365	328806	329247	329689	330130	32.27

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 3 OF 4

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SOUNDING TABLE

WATERMAN LASH — #2 WING SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	330571	331012	331453	331894	332335	332777	333218	333659	334100	334541	334982	335423	32.64
49	335865	336306	336747	337188	337629	338070	338513	338956	339400	339843	340286	340729	33.02
50	341173	341616	342059	342503	342946	343389	343833	344276	344719	345162	345606	346049	33.41
51	346492	346936	347379	347822	348265	348709	348973	349196	349418	349640	349862	350085	33.80
52	350307	350529											34.08

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT.

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
0	1.17	2.63	4.08	5.54	6.99	8.44	9.90	11.35	12.80	14.26	15.71	17.16	8.53
1	18.62	20.07	21.52	22.98	24.43	25.89	27.34	28.79	30.25	31.70	33.15	34.61	8.99
2	36.34	38.14	39.94	41.74	43.54	45.34	47.13	48.93	50.73	52.53	54.33	56.13	9.45
3	57.93	59.73	61.53	63.33	65.13	66.92	68.72	70.52	72.32	74.12	75.92	77.72	9.98
4	79.63	81.58	83.52	85.46	87.40	89.35	91.29	93.23	95.17	97.11	99.06	101.00	10.50
5	102.94	104.88	106.83	108.77	110.71	112.65	114.59	116.54	118.48	120.42	122.36	124.31	11.03
6	126.34	128.39	130.44	132.49	134.54	136.60	138.65	140.70	142.75	144.80	146.86	148.91	11.56
7	150.96	153.01	155.06	157.12	159.17	161.22	163.27	165.32	167.37	169.43	171.48	173.53	12.09
8	175.65	177.79	179.92	182.06	184.20	186.33	188.47	190.60	192.74	194.88	197.01	199.15	12.63
9	201.29	203.42	205.56	207.70	209.83	211.97	214.10	216.24	218.38	220.51	222.65	224.79	13.16
10	226.98	229.18	231.38	233.56	235.78	237.98	240.18	242.39	244.59	246.79	248.99	251.19	13.70
11	253.39	255.60	257.80	260.00	262.20	264.40	266.60	268.80	271.01	273.21	275.41	277.61	14.23
12	279.85	282.10	284.35	286.61	288.86	291.11	293.36	295.61	297.86	300.12	302.37	304.62	14.77
13	306.87	309.12	311.37	313.63	315.88	318.13	320.38	322.63	324.88	327.13	329.39	331.64	15.30
14	333.92	336.21	338.50	340.79	343.08	345.37	347.66	349.95	352.24	354.53	356.82	359.11	15.83
15	361.40	363.68	365.97	368.26	370.55	372.84	375.13	377.42	379.71	382.00	384.29	386.58	16.36

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
16	388.90	391.22	393.53	395.86	398.18	400.49	402.81	405.14	407.45	409.77	412.09	414.41	16.90
17	416.73	419.05	421.37	423.69	426.01	428.33	430.65	432.97	435.29	437.61	439.93	442.25	17.43
18	444.59	446.94	449.28	451.63	453.97	456.32	458.66	461.01	463.35	465.70	468.04	470.39	17.95
19	472.73	475.07	477.42	479.76	482.11	484.45	486.80	489.14	491.49	493.83	496.18	498.52	18.48
20	500.88	503.25	505.61	507.98	510.34	512.71	515.07	517.44	519.81	522.17	524.54	526.90	19.01
21	529.27	531.63	534.00	536.36	538.73	541.09	543.46	545.82	548.19	550.56	552.92	555.29	19.54
22	557.67	560.05	562.43	564.82	567.20	569.58	571.97	574.35	576.73	579.12	581.50	583.88	20.06
23	586.27	588.65	591.04	593.42	595.80	598.19	600.57	602.95	605.34	607.72	610.10	612.49	20.59
24	614.88	617.28	619.68	622.08	624.48	626.88	629.28	631.68	634.08	636.48	638.88	641.28	21.11
25	643.68	646.08	648.48	650.88	653.28	655.68	658.08	660.48	662.88	665.28	667.68	670.08	21.64
26	672.49	674.91	677.32	679.74	682.16	684.57	686.99	689.40	691.82	694.23	696.65	699.06	22.16
27	701.46	703.89	706.31	708.72	711.14	713.55	715.97	718.38	720.80	723.22	725.63	728.05	22.68
28	730.47	732.90	735.33	737.76	740.19	742.62	745.06	747.49	749.92	752.35	754.78	757.21	23.21
29	759.64	762.07	764.50	766.93	769.36	771.79	774.22	776.65	779.08	781.51	783.94	786.37	23.73
30	788.81	791.26	793.70	796.15	798.60	801.04	803.49	805.93	808.38	810.82	813.27	815.71	24.25
31	818.16	820.60	823.05	825.49	827.94	830.39	832.83	835.28	837.72	840.17	842.61	845.06	24.78

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
32	847.51	849.97	852.43	854.89	857.35	859.81	862.27	864.73	867.19	869.65	872.11	874.57	25.30
33	877.03	879.49	881.95	884.41	886.87	889.33	891.79	894.25	896.71	899.17	901.63	904.09	25.82
34	906.56	909.03	911.50	913.98	916.45	918.92	921.40	923.87	926.34	928.82	931.29	933.76	26.34
35	936.24	938.71	941.18	943.66	946.13	948.60	951.08	953.55	956.03	958.50	960.97	963.45	26.87
36	965.93	968.42	970.90	973.39	975.87	978.36	980.85	983.33	985.82	988.31	990.79	993.28	27.39
37	995.76	998.25	1000.74	1003.22	1005.71	1008.20	1010.68	1013.17	1015.65	1018.14	1020.63	1023.11	27.91
38	1025.61	1028.11	1030.61	1033.10	1035.60	1038.10	1040.60	1043.10	1045.59	1048.09	1050.59	1053.09	28.43
39	1055.59	1058.08	1060.58	1063.08	1065.58	1068.08	1070.57	1073.07	1075.57	1078.07	1080.57	1083.06	28.96
40	1085.57	1088.08	1090.59	1093.09	1095.60	1098.11	1100.62	1103.13	1105.63	1108.14	1110.65	1113.16	29.48
41	1115.67	1118.17	1120.68	1123.19	1125.70	1128.21	1130.11	1131.86	1133.62	1135.37	1137.13	1138.88	30.00
42	1140.64	1142.39	1144.15	1145.90	1147.66	1149.42	1151.17	1152.93	1154.68	1156.44	1158.19	1159.95	30.43
43	1161.70	1163.46	1165.21	1166.97	1168.73	1170.48	1172.16	1173.83	1175.50	1177.16	1178.83	1180.50	30.80
44	1182.16	1183.83	1185.50	1187.16	1188.83	1190.50	1192.16	1193.83	1195.50	1197.16	1198.83	1200.50	31.17
45	1202.16	1203.83	1205.50	1207.16	1208.83	1210.49	1212.17	1213.85	1215.52	1217.20	1218.87	1220.55	31.53
46	1222.23	1223.90	1225.58	1227.26	1228.93	1230.61	1232.28	1233.96	1235.64	1237.31	1238.99	1240.67	31.89
47	1242.34	1244.02	1245.69	1247.37	1249.05	1250.72	1252.41	1254.09	1255.78	1257.46	1259.15	1260.83	32.27

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
48	1262.52	1264.20	1265.89	1267.57	1269.25	1270.94	1272.62	1274.31	1275.99	1277.68	1279.36	1281.05	32.64
49	1282.73	1284.42	1286.10	1287.79	1289.47	1291.16	1292.85	1294.54	1296.23	1297.93	1299.62	1301.31	33.02
50	1303.01	1304.70	1306.39	1308.09	1309.78	1311.47	1313.16	1314.86	1316.55	1318.24	1319.94	1321.63	33.41
51	1323.32	1325.02	1326.71	1328.40	1330.09	1331.79	1332.86	1333.65	1334.50	1335.35	1336.19	1337.04	33.80
52	1337.89	1338.74											34.08

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
0	299	634	968	1303	1637	1971	2306	2640	2974	3309	3643	3977	8.53
1	4312	4646	4981	5315	5649	5984	6318	6652	6987	7321	7655	7990	8.95
2	8442	8908	9374	9839	10305	10771	11237	11703	12169	12634	13100	13566	9.37
3	14032	14498	14964	15429	15895	16361	16827	17293	17759	18224	18690	19156	9.88
4	19657	20161	20666	21170	21675	22179	22684	23188	23693	24197	24702	25206	10.40
5	25711	26215	26720	27224	27729	28233	28738	29242	29747	30251	30756	31260	10.93
6	31791	32325	32859	33393	33927	34461	34996	35530	36064	36598	37132	37666	11.45
7	38200	38734	39268	39802	40336	40870	41404	41938	42473	43007	43541	44075	11.99
8	44629	45186	45743	46300	46857	47414	47971	48527	49084	49641	50198	50755	12.52
9	51312	51869	52426	52983	53540	54096	54653	55210	55767	56324	56881	57438	13.05
10	58010	58585	59159	59734	60308	60883	61457	62032	62606	63181	63755	64330	13.59
11	64904	65479	66053	66628	67202	67776	68351	68925	69500	70074	70649	71223	14.12
12	71810	72398	72986	73574	74162	74750	75338	75926	76514	77102	77690	78278	14.66
13	78866	79454	80042	80630	81218	81806	82394	82982	83570	84158	84746	85334	15.19
14	85931	86530	87128	87726	88325	88923	89521	90120	90718	91316	91914	92513	15.72
15	93111	93709	94308	94906	95504	96103	96701	97299	97897	98496	99094	99692	16.25

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
16	100298	100904	101511	102117	102724	103330	103937	104543	105149	105756	106362	106969	16.79
17	107575	108182	108788	109395	110001	110607	111214	111820	112427	113033	113640	114246	17.32
18	114859	115472	116085	116698	117311	117924	118537	119150	119763	120376	120989	121602	17.84
19	122215	122828	123441	124054	124667	125280	125893	126506	127119	127732	128345	128958	18.37
20	129576	130195	130814	131432	132051	132669	133288	133906	134525	135144	135762	136381	18.90
21	136999	137618	138236	138855	139474	140092	140711	141329	141948	142567	143185	143804	19.43
22	144427	145050	145673	146297	146920	147543	148167	148790	149414	150037	150660	151284	19.95
23	151907	152530	153154	153777	154401	155024	155647	156271	156894	157518	158141	158764	20.48
24	159392	160019	160647	161275	161902	162530	163158	163786	164413	165041	165669	166297	21.00
25	166924	167552	168180	168808	169435	170063	170691	171318	171946	172574	173202	173829	21.53
26	174461	175093	175724	176356	176988	177620	178251	178883	179515	180147	180778	181410	22.05
27	182042	182674	183305	183937	184569	185201	185832	186464	187096	187728	188359	188991	22.57
28	189627	190262	190898	191534	192169	192805	193441	194076	194712	195348	195984	196619	23.10
29	197255	197891	198526	199162	199798	200433	201069	201705	202341	202976	203612	204248	23.62
30	204887	205527	206166	206806	207445	208085	208725	209364	210004	210644	211283	211923	24.14
31	212563	213202	213842	214481	215121	215761	216400	217040	217680	218319	218959	219598	24.66

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
32	220242	220885	221528	222172	222815	223459	224102	224745	225389	226032	226676	227319	25.19
33	227962	228606	229249	229893	230536	231179	231823	232466	233110	233753	234396	235040	25.71
34	235686	236333	236980	237627	238274	238921	239568	240215	240862	241509	242156	242803	26.23
35	243450	244097	244744	245391	246038	246685	247332	247979	248626	249273	249920	250567	26.75
36	251217	251868	252518	253169	253819	254469	255120	255770	256421	257071	257722	258372	27.28
37	259022	259673	260323	260974	261624	262274	262925	263575	264226	264876	265527	266177	27.80
38	266830	267484	268137	268791	269444	270098	270751	271405	272058	272712	273365	274019	28.32
39	274673	275326	275979	276633	277287	277940	278594	279247	279901	280554	281208	281861	28.84
40	282517	283173	283829	284486	285142	285798	286454	287110	287766	288422	289078	289734	29.36
41	290391	291047	291703	292359	293015	293671	294174	294659	295144	295629	296114	296599	29.89
42	297084	297569	298054	298539	299024	299509	299995	300480	300965	301450	301935	302420	30.33
43	302905	303390	303875	304360	304845	305330	305771	306207	306643	307079	307514	307950	30.72
44	308386	308822	309258	309694	310130	310566	311001	311437	311873	312309	312745	313181	31.09
45	313617	314052	314488	314924	315360	315796	316234	316673	317111	317549	317988	318426	31.45
46	318865	319303	319742	320180	320619	321057	321495	321934	322372	322811	323249	323688	31.81
47	324126	324565	325003	325441	325880	326318	326759	327199	327640	328081	328522	328962	32.18

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
48	329403	329844	330284	330725	331166	331607	332047	332488	332929	333370	333810	334251	32.56
49	334692	335132	335573	336014	336454	336895	337338	337781	338224	338666	339109	339552	32.94
50	339995	340438	340881	341324	341766	342209	342652	343095	343538	343981	344424	344866	33.32
51	345309	345752	346195	346638	347081	347523	347769	347991	348213	348435	348657	348879	33.71
52	349101	349323	349545	349767	349990	350212							33.99

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.16

WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.14	2.42	3.70	4.97	6.25	7.53	8.81	10.08	11.36	12.64	13.91	15.19	8.53
1	16.47	17.74	19.02	20.30	21.58	22.85	24.13	25.41	26.68	27.96	29.24	30.51	8.95
2	32.24	34.02	35.80	37.58	39.36	41.14	42.92	44.70	46.47	48.25	50.03	51.81	9.37
3	53.59	55.37	57.15	58.93	60.71	62.49	64.27	66.04	67.82	69.60	71.38	73.16	9.88
4	75.07	77.00	78.93	80.85	82.78	84.71	86.63	88.56	90.49	92.41	94.34	96.27	10.40
5	98.19	100.12	102.05	103.97	105.90	107.83	109.75	111.68	113.61	115.53	117.46	119.39	10.93
6	121.42	123.46	125.50	127.54	129.58	131.62	133.65	135.69	137.73	139.77	141.81	143.85	11.45
7	145.89	147.93	149.97	152.01	154.05	156.09	158.13	160.17	162.21	164.25	166.29	168.33	11.99
8	170.45	172.57	174.70	176.83	178.96	181.08	183.21	185.34	187.46	189.59	191.72	193.84	12.52
9	195.97	198.10	200.22	202.35	204.48	206.60	208.73	210.86	212.99	215.11	217.24	219.37	13.05
10	221.55	223.75	225.94	228.14	230.33	232.52	234.72	236.91	239.11	241.30	243.49	245.69	13.59
11	247.88	250.08	252.27	254.46	256.66	258.85	261.05	263.24	265.43	267.63	269.82	272.02	14.12
12	274.26	276.50	278.75	280.99	283.24	285.49	287.73	289.98	292.22	294.47	296.71	298.96	14.66
13	301.21	303.45	305.70	307.94	310.19	312.43	314.68	316.93	319.17	321.42	323.66	325.91	15.19
14	328.19	330.47	332.76	335.04	337.33	339.61	341.90	344.18	346.47	348.75	351.04	353.32	15.72
15	355.61	357.89	360.18	362.46	364.75	367.03	369.32	371.60	373.89	376.18	378.46	380.74	16.25

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	383.06	385.37	387.69	390.01	392.32	394.64	396.95	399.27	401.59	403.90	406.22	408.54	16.79
17	410.85	413.17	415.48	417.80	420.12	422.43	424.75	427.06	429.38	431.70	434.01	436.33	17.32
18	438.67	441.01	443.35	445.69	448.03	450.37	452.72	455.06	457.40	459.74	462.08	464.42	17.84
19	466.76	469.10	471.45	473.79	476.13	478.47	480.81	483.15	485.49	487.84	490.18	492.52	18.37
20	494.88	497.24	499.60	501.97	504.33	506.69	509.05	511.42	513.78	516.14	518.50	520.86	18.90
21	523.23	525.59	527.95	530.31	532.68	535.04	537.40	539.76	542.13	544.49	546.85	549.21	19.43
22	551.59	553.97	556.35	558.74	561.12	563.50	565.88	568.26	570.64	573.02	575.40	577.78	19.95
23	580.16	582.54	584.92	587.31	589.69	592.07	594.45	596.83	599.21	601.59	603.97	606.35	20.48
24	608.75	611.15	613.54	615.94	618.34	620.74	623.13	625.53	627.93	630.32	632.72	635.12	21.00
25	637.52	639.91	642.31	644.71	647.11	649.50	651.90	654.30	656.70	659.09	661.49	663.89	21.53
26	666.30	668.71	671.13	673.54	675.95	678.36	680.78	683.19	685.60	688.02	690.43	692.84	22.05
27	695.25	697.67	700.08	702.49	704.91	707.32	709.73	712.14	714.56	716.97	719.38	721.79	22.57
28	724.22	726.65	729.08	731.50	733.93	736.36	738.79	741.22	743.64	746.07	748.50	750.93	23.10
29	753.36	755.78	758.21	760.64	763.07	765.50	767.92	770.35	772.78	775.21	777.63	780.06	23.62
30	782.50	784.95	787.39	789.83	792.28	794.72	797.16	799.60	802.05	804.49	806.93	809.38	24.14
31	811.82	814.26	816.70	819.15	821.59	824.03	826.48	828.92	831.36	833.80	836.25	838.69	24.66

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	841.15	843.60	846.06	848.52	850.98	853.43	855.89	858.35	860.80	863.26	865.72	868.18	25.19
33	870.63	873.09	875.55	878.01	880.46	882.92	885.38	887.83	890.29	892.75	895.21	897.66	25.71
34	900.13	902.60	905.07	907.55	910.02	912.49	914.96	917.43	919.90	922.37	924.84	927.31	26.23
35	929.79	932.26	934.73	937.20	939.67	942.14	944.61	947.08	949.55	952.02	954.50	956.97	26.75
36	959.45	961.93	964.42	966.90	969.39	971.87	974.35	976.84	979.32	981.81	984.29	986.77	27.28
37	989.26	991.74	994.23	996.71	999.19	1001.68	1004.16	1006.65	1009.13	1011.61	1014.10	1016.58	27.80
38	1019.08	1021.57	1024.07	1026.57	1029.06	1031.56	1034.05	1036.55	1039.04	1041.54	1044.04	1046.53	28.32
39	1049.03	1051.52	1054.02	1056.52	1059.01	1061.51	1064.00	1066.50	1069.00	1071.49	1073.99	1076.48	28.84
40	1078.99	1081.49	1084.00	1086.51	1089.01	1091.52	1094.02	1096.53	1099.04	1101.54	1104.05	1106.55	29.36
41	1109.06	1111.57	1114.07	1116.58	1119.08	1121.59	1123.51	1125.36	1127.21	1129.07	1130.92	1132.77	29.89
42	1134.62	1136.48	1138.33	1140.18	1142.03	1143.89	1145.74	1147.59	1149.44	1151.30	1153.15	1155.00	30.33
43	1156.85	1158.71	1160.56	1162.41	1164.26	1166.12	1167.80	1169.46	1171.13	1172.79	1174.46	1176.12	30.72
44	1177.79	1179.45	1181.12	1182.78	1184.45	1186.11	1187.78	1189.44	1191.11	1192.77	1194.43	1196.10	31.09
45	1197.76	1199.43	1201.09	1202.76	1204.42	1206.09	1207.76	1209.44	1211.11	1212.78	1214.46	1216.13	31.45
46	1217.81	1219.48	1221.16	1222.83	1224.51	1226.18	1227.85	1229.53	1231.20	1232.88	1234.55	1236.23	31.81
47	1237.90	1239.58	1241.25	1242.93	1244.60	1246.27	1247.96	1249.64	1251.32	1253.01	1254.69	1256.37	32.18

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#2 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1258.06	1259.74	1261.42	1263.11	1264.79	1266.47	1268.15	1269.84	1271.52	1273.20	1274.89	1276.57	32.56
49	1278.25	1279.94	1281.62	1283.30	1284.99	1286.67	1288.36	1290.05	1291.74	1293.43	1295.13	1296.82	32.94
50	1298.51	1300.20	1301.89	1303.58	1305.27	1306.97	1308.66	1310.35	1312.04	1313.73	1315.42	1317.11	33.32
51	1318.80	1320.50	1322.19	1323.88	1325.57	1327.26	1328.20	1329.05	1329.89	1330.74	1331.59	1332.44	33.71
52	1333.29	1334.14	1334.98	1335.83	1336.68	1337.53							33.99

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	331741	332182	332624	333066	333507	333949	334390	334832	335273	335715	336156	336598	32.73
49	337040	337481	337923	338364	338806	339247	339691	340134	340578	341022	341465	341909	33.11
50	342353	342796	343240	343684	344128	344571	345015	345459	345902	346346	346790	347234	33.50
51	347677	348121	348565	349008	349452	349896	350180	350403	350625				33.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	223579	224224	224868	225513	226158	226802	227447	228092	228736	229381	230026	230670	25.41
33	231315	231960	232604	233249	233894	234538	235183	235828	236472	237117	237762	238406	25.93
34	239053	239702	240350	240998	241646	242295	242943	243591	244239	244888	245536	246184	26.46
35	246832	247481	248129	248777	249425	250073	250722	251370	252018	252666	253315	253963	26.98
36	254614	255265	255917	256568	257220	257871	258523	259175	259826	260478	261129	261781	27.50
37	262432	263084	263736	264387	265039	265690	266342	266993	267645	268297	268948	269600	28.02
38	270254	270908	271563	272217	272872	273527	274181	274836	275490	276145	276800	277454	28.55
39	278109	278764	279418	280073	280728	281382	282037	282691	283346	284001	284655	285310	29.07
40	285966	286624	287281	287938	288595	289252	289910	290567	291224	291881	292538	293196	29.59
41	293853	294510	295167	295825	296482	297139	297636	298070	298504	298938	299373	299807	30.11
42	300241	300675	301109	301544	301978	302412	302846	303281	303715	304149	304583	305017	30.54
43	305452	305886	306320	306754	307189	307623	308059	308496	308933	309369	309806	310243	30.89
44	310680	311117	311554	311990	312427	312864	313301	313738	314175	314612	315048	315485	31.25
45	315922	316359	316796	317233	317669	318106	318545	318984	319424	319863	320302	320742	31.61
46	321181	321621	322060	322499	322939	323378	323817	324257	324696	325136	325575	326014	31.98
47	326454	326893	327332	327772	328211	328650	329091	329533	329975	330416	330858	331299	32.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	103359	103968	104576	105185	105793	106401	107010	107618	108227	108835	109443	110052	17.01
17	110660	111269	111877	112486	113094	113702	114311	114919	115528	116136	116745	117353	17.54
18	117966	118581	119195	119810	120425	121040	121655	122269	122884	123499	124114	124728	18.07
19	125343	125958	126572	127187	127802	128417	129032	129646	130261	130876	131491	132105	18.59
20	132724	133344	133964	134584	135204	135824	136445	137065	137685	138305	138925	139545	19.12
21	140165	140785	141405	142025	142645	143265	143886	144506	145126	145746	146366	146986	19.65
22	147610	148234	148859	149484	150109	150733	151358	151983	152608	153233	153857	154482	20.17
23	155107	155732	156357	156981	157606	158231	158856	159481	160105	160730	161355	161980	20.70
24	162608	163237	163866	164495	165124	165753	166382	167011	167640	168269	168898	169527	21.23
25	170156	170785	171414	172043	172672	173301	173930	174559	175188	175817	176446	177075	21.75
26	177707	178340	178973	179607	180240	180873	181506	182139	182772	183405	184038	184671	22.27
27	165304	185937	186570	187203	187836	188469	189102	189735	190368	191001	191634	192267	22.80
28	192903	193540	194177	194814	195451	196088	196725	197362	197999	198636	199273	199910	23.32
29	200547	201184	201821	202458	203095	203732	204369	205006	205643	206280	206917	207554	23.84
30	208194	208835	209476	210117	210758	211399	212040	212681	213322	213963	214604	215244	24.37
31	215885	216526	217167	217808	218449	219090	219731	220372	221013	221654	222295	222936	24.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	308	736	1164	1591	2019	2447	2875	3302	3730	4158	4586	5013	8.53
1	5441	5869	6297	6724	7152	7580	8008	8436	8863	9291	9719	10147	9.04
2	10609	11085	11561	12037	12514	12990	13466	13942	14418	14894	15370	15846	9.55
3	16322	16798	17275	17751	18227	18703	19179	19655	20131	20607	21083	21559	10.08
4	22062	22574	23087	23599	24112	24624	25136	25649	26161	26674	27186	27699	10.60
5	28211	28724	29236	29749	30261	30774	31286	31798	32311	32823	33336	33848	11.14
6	34381	34921	35461	36002	36542	37082	37623	38163	38703	39244	39784	40324	11.67
7	40865	41405	41945	42486	43026	43566	44107	44647	45187	45728	46268	46808	12.20
8	47364	47926	48487	49049	49611	50173	50735	51296	51858	52420	52982	53543	12.74
9	54105	54667	55229	55790	56352	56914	57476	58038	58599	59161	59723	60285	13.27
10	60858	61437	62015	62593	63172	63750	64328	64906	65485	66063	66641	67220	13.81
11	67798	68376	68954	69533	70111	70689	71268	71846	72424	73003	73581	74159	14.34
12	74747	75338	75929	76520	77111	77702	78293	78884	79475	80066	80657	81248	14.88
13	81839	82430	83020	83612	84203	84793	85385	85975	86566	87158	87748	88339	15.41
14	88937	89538	90139	90739	91340	91941	92542	93142	93743	94344	94944	95545	15.94
15	96146	96746	97347	97948	98548	99149	99750	100350	100951	101552	102152	102753	16.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 17

WATERMAN LASH — SOUNDING TABLE — 129

2 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.18	2.81	4.44	6.08	7.71	9.34	10.98	12.61	14.25	15.88	17.51	19.15	8.53
1	20.78	22.41	24.05	25.68	27.32	28.95	30.58	32.22	33.85	35.48	37.12	38.75	9.04
2	40.52	42.34	44.16	45.97	47.79	49.61	51.43	53.25	55.06	56.88	58.70	60.52	9.55
3	62.34	64.16	65.97	67.79	69.61	71.43	73.25	75.07	76.88	78.70	80.52	82.34	10.08
4	84.26	86.22	88.17	90.13	92.09	94.04	96.00	97.96	99.92	101.87	103.83	105.79	10.60
5	107.74	109.70	111.66	113.62	115.57	117.53	119.49	121.44	123.40	125.36	127.32	129.27	11.14
6	131.31	133.37	135.43	137.50	139.56	141.63	143.69	145.75	147.82	149.88	151.94	154.01	11.67
7	156.07	158.13	160.20	162.26	164.32	166.39	168.45	170.52	172.58	174.64	176.71	178.77	12.20
8	180.89	183.04	185.18	187.33	189.47	191.62	193.77	195.91	198.06	200.20	202.35	204.49	12.74
9	206.64	208.78	210.93	213.07	215.22	217.37	219.51	221.66	223.80	225.95	228.09	230.24	13.27
10	232.43	234.64	236.85	239.06	241.26	243.47	245.68	247.89	250.10	252.31	254.52	256.72	13.81
11	258.93	261.14	263.35	265.56	267.77	269.98	272.19	274.39	276.60	278.81	281.02	283.23	14.34
12	285.47	287.73	289.99	292.24	294.50	296.76	299.02	301.27	303.53	305.79	308.04	310.30	14.88
13	312.56	314.81	317.07	319.33	321.59	323.84	326.10	328.36	330.61	332.87	335.13	337.39	15.41
14	339.67	341.96	344.26	346.55	348.85	351.14	353.43	355.73	358.02	360.32	362.61	364.90	15.94
15	367.20	369.49	371.79	374.08	376.38	378.67	380.96	383.26	385.55	387.85	390.14	392.43	16.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 1 OF 4

WATERMAN LASH — SOUNDING TABLE — 130

2 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	394.75	397.07	399.40	401.72	404.04	406.37	408.69	411.02	413.34	415.66	417.99	420.31	17.01
17	422.63	424.96	427.28	429.60	431.93	434.25	436.58	438.90	441.22	443.55	445.87	448.19	17.54
18	450.54	452.88	455.23	457.58	459.93	462.27	464.62	466.97	469.32	471.67	474.01	476.36	18.07
19	478.71	481.06	483.41	485.75	488.10	490.45	492.80	495.15	497.49	499.84	502.19	504.54	18.59
20	506.90	509.27	511.64	514.00	516.37	518.74	521.11	523.48	525.84	528.21	530.58	532.95	19.12
21	535.32	537.69	540.05	542.42	544.79	547.16	549.53	551.90	554.26	556.63	559.00	561.37	19.65
22	563.75	566.14	568.52	570.91	573.29	575.68	578.07	580.45	582.84	585.23	587.61	590.00	20.17
23	592.38	594.77	597.16	599.54	601.93	604.32	606.70	609.09	611.47	613.86	616.25	618.63	20.70
24	621.03	623.43	625.84	628.24	630.64	633.04	635.45	637.85	640.25	642.65	645.05	647.46	21.23
25	649.86	652.26	654.66	657.07	659.47	661.87	664.27	666.68	669.08	671.48	673.88	676.29	21.75
26	678.70	681.12	683.54	685.95	688.37	690.79	693.21	695.62	698.04	700.46	702.88	705.29	22.27
27	707.71	710.13	712.55	714.97	717.38	719.80	722.22	724.64	727.05	729.47	731.89	734.31	22.80
28	736.74	739.17	741.60	744.03	746.47	748.90	751.33	753.77	756.20	758.63	761.06	763.50	23.32
29	765.93	768.36	770.80	773.23	775.66	778.09	780.53	782.96	785.39	787.83	790.26	792.69	23.84
30	795.14	797.58	800.03	802.48	804.93	807.37	809.82	812.27	814.72	817.17	819.61	822.06	24.37
31	824.51	826.96	829.40	831.85	834.30	836.75	839.20	841.64	844.09	846.54	848.99	851.44	24.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 2 OF 4

WATERMAN LASH — SOUNDING TABLE — 131

2 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	853.89	856.36	858.82	861.28	863.74	866.20	868.67	871.13	873.59	876.05	878.51	880.98	25.41
33	883.44	885.90	888.36	890.82	893.29	895.75	898.21	900.67	903.13	905.60	908.06	910.52	25.93
34	912.99	915.47	917.94	920.42	922.90	925.37	927.85	930.32	932.80	935.27	937.75	940.23	26.46
35	942.70	945.18	947.65	950.13	952.60	955.08	957.56	960.03	962.51	964.98	967.46	969.93	26.98
36	972.42	974.91	977.40	979.89	982.37	984.86	987.35	989.84	992.33	994.82	997.30	999.79	27.50
37	1002.28	1004.77	1007.26	1009.75	1012.24	1014.72	1017.21	1019.70	1022.19	1024.68	1027.17	1029.65	28.02
38	1032.15	1034.65	1037.15	1039.65	1042.15	1044.65	1047.15	1049.65	1052.15	1054.65	1057.15	1059.65	28.55
39	1062.15	1064.65	1067.15	1069.65	1072.15	1074.65	1077.15	1079.65	1082.15	1084.65	1087.15	1089.65	29.07
40	1092.16	1094.67	1097.18	1099.69	1102.20	1104.71	1107.22	1109.73	1112.24	1114.75	1117.26	1119.77	29.59
41	1122.28	1124.79	1127.30	1129.81	1132.32	1134.83	1136.73	1138.39	1140.05	1141.70	1143.36	1145.02	30.11
42	1146.68	1148.34	1150.00	1151.66	1153.31	1154.97	1156.63	1158.29	1159.95	1161.61	1163.26	1164.92	30.54
43	1166.58	1168.24	1169.90	1171.56	1173.21	1174.87	1176.54	1178.21	1179.87	1181.54	1183.21	1184.88	30.89
44	1186.55	1188.22	1189.89	1191.55	1193.22	1194.89	1196.56	1198.23	1199.90	1201.56	1203.23	1204.90	31.25
45	1206.57	1208.24	1209.91	1211.57	1213.24	1214.91	1216.59	1218.26	1219.94	1221.62	1223.30	1224.98	31.61
46	1226.65	1228.33	1230.01	1231.69	1233.37	1235.04	1236.72	1238.40	1240.08	1241.76	1243.44	1245.11	31.98
47	1246.79	1248.47	1250.15	1251.83	1253.50	1255.18	1256.87	1258.55	1260.24	1261.93	1263.61	1265.30	32.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 3 OF 4

WATERMAN LASH — SOUNDING TABLE — 132

2 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1266.98	1268.67	1270.36	1272.04	1273.73	1275.42	1277.10	1278.79	1280.48	1282.16	1283.85	1285.53	32.73
49	1287.22	1288.91	1290.59	1292.28	1293.97	1295.65	1297.35	1299.04	1300.73	1302.43	1304.12	1305.82	33.11
50	1307.51	1309.21	1310.90	1312.60	1314.29	1315.99	1317.68	1319.38	1321.07	1322.76	1324.46	1326.15	33.50
51	1327.85	1329.54	1331.24	1332.93	1334.63	1336.32	1337.41	1338.26	1339.11				33.89

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 4 OF 4

WATERMAN LASH — SOUNDING TABLE — 136

2 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	330571	331012	331453	331894	332335	332777	333218	333659	334100	334541	334982	335423	32.64
49	335865	336306	336747	337188	337629	338070	338513	338956	339400	339843	340286	340729	33.02
50	341173	341616	342059	342503	342946	343389	343833	344276	344719	345162	345606	346049	33.41
51	346492	346936	347379	347822	348265	348709	348973	349196	349418	349640	349862	350085	33.80
52	350307	350529											34.08

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 4 OF 4

WATERMAN LASH — SOUNDING TABLE — 135

2 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	221909	222553	223197	223841	224485	225129	225773	226417	227061	227705	228349	228993	25.30
33	229637	230281	230925	231569	232213	232857	233502	234146	234789	235434	236078	236722	25.82
34	237369	238016	238664	239311	239959	240607	241254	241902	242549	243197	243845	244492	26.34
35	245140	245788	246435	247083	247730	248378	249026	249673	250321	250969	251616	252264	26.87
36	252914	253565	254216	254867	255518	256169	256820	257471	258122	258773	259424	260075	27.39
37	260726	261377	262028	262679	263330	263981	264632	265283	265934	266585	267236	267887	27.91
38	268541	269195	269849	270503	271157	271811	272465	273119	273773	274427	275081	275735	28.43
39	276389	277044	277698	278352	279006	279660	280314	280968	281622	282276	282930	283584	28.96
40	284240	284897	285554	286210	286867	287524	288180	288837	289494	290150	290807	291464	29.48
41	292120	292777	293434	294090	294747	295404	295901	296361	296821	297280	297740	298199	30.00
42	298659	299119	299578	300038	300498	300957	301417	301876	302336	302796	303255	303715	30.43
43	304175	304634	305094	305554	306013	306473	306914	307350	307786	308223	308659	309095	30.80
44	309532	309968	310405	310841	311277	311714	312150	312586	313023	313459	313895	314332	31.17
45	314768	315205	315641	316077	316514	316950	317388	317827	318266	318705	319144	319583	31.53
46	320022	320461	320900	321339	321777	322216	322655	323094	323533	323972	324411	324850	31.89
47	325289	325728	326167	326605	327044	327483	327924	328365	328806	329247	329689	330130	32.27

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 3 OF 4

WATERMAN LASH — SOUNDING TABLE — 134

2 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	101826	102434	103041	103649	104256	104864	105471	106079	106686	107293	107901	108508	16.90
17	109116	109723	110331	110938	111546	112153	112760	113368	113975	114583	115190	115798	17.43
18	116410	117024	117638	118252	118866	119480	120094	120708	121322	121936	122549	123163	17.95
19	123777	124391	125005	125619	126233	126847	127461	128075	128689	129303	129916	130530	18.48
20	131149	131768	132387	133007	133626	134245	134865	135484	136103	136723	137342	137961	19.01
21	138581	139200	139819	140439	141058	141677	142297	142916	143535	144155	144774	145393	19.54
22	146017	146641	147265	147889	148513	149137	149761	150385	151009	151633	152257	152881	20.06
23	153506	154130	154754	155378	156002	156626	157250	157874	158498	159122	159746	160371	20.59
24	160998	161627	162255	162883	163512	164140	164768	165397	166025	166654	167282	167910	21.11
25	168539	169167	169796	170424	171052	171681	172309	172938	173566	174194	174823	175451	21.64
26	176083	176715	177347	177980	178612	179245	179877	180509	181142	181774	182407	183039	22.16
27	183672	184304	184936	185569	186201	186833	187466	188098	188731	189363	189995	190628	22.68
28	191263	191900	192536	193173	193809	194445	195082	195718	196354	196991	197627	198263	23.21
29	198900	199536	200172	200809	201445	202081	202718	203354	203990	204627	205263	205900	23.73
30	206539	207179	207820	208460	209100	209740	210381	211021	211661	212302	212942	213582	24.25
31	214223	214863	215503	216143	216784	217424	218064	218705	219345	219985	220625	221266	24.78

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 2 OF 4

WATERMAN LASH — SOUNDING TABLE — 133

2 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 61-67 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	307	688	1069	1449	1830	2210	2591	2972	3352	3733	4113	4494	8.53
1	4875	5255	5636	6016	6397	6778	7158	7539	7919	8300	8681	9061	8.99
2	9515	9986	10457	10928	11399	11870	12341	12812	13284	13755	14226	14697	9.45
3	15168	15639	16110	16581	17052	17523	17994	18465	18936	19408	19879	20350	9.98
4	20851	21360	21868	22377	22885	23394	23902	24411	24919	25428	25937	26445	10.50
5	26954	27462	27971	28479	28988	29496	30005	30514	31022	31531	32039	32548	11.03
6	33079	33617	34154	34691	35228	35766	36303	36840	37378	37915	38452	38989	11.56
7	39527	40064	40601	41138	41676	42213	42750	43287	43825	44362	44899	45436	12.09
8	45991	46551	47110	47670	48229	48788	49348	49907	50466	51026	51585	52144	12.63
9	52704	53263	53823	54382	54941	55501	56060	56620	57179	57738	58298	58857	13.16
10	59430	60007	60583	61159	61736	62312	62889	63465	64042	64618	65194	65771	13.70
11	66347	66924	67500	68077	68653	69229	69806	70382	70959	71535	72112	72688	14.23
12	73275	73865	74454	75044	75633	76223	76812	77402	77991	78581	79170	79760	14.77
13	80350	80939	81528	82118	82708	83297	83887	84476	85066	85655	86245	86834	15.30
14	87432	88031	88631	89230	89830	90429	91029	91628	92228	92827	93427	94026	15.83
15	94626	95225	95825	96425	97024	97623	98223	98822	99422	100022	100621	101220	16.36

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. — STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 52.440 FT.

C7-1000 — SHEET 1 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 18

137

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
0	1.17	2.63	4.08	5.54	6.99	8.44	9.90	11.35	12.80	14.26	15.71	17.16	8.53
1	18.62	20.07	21.52	22.98	24.43	25.89	27.34	28.79	30.25	31.70	33.15	34.61	8.99
2	36.34	38.14	39.94	41.74	43.54	45.34	47.13	48.93	50.73	52.53	54.33	56.13	9.45
3	57.93	59.73	61.53	63.33	65.13	66.92	68.72	70.52	72.32	74.12	75.92	77.72	9.98
4	79.63	81.58	83.52	85.46	87.40	89.35	91.29	93.23	95.17	97.11	99.06	101.00	10.50
5	102.94	104.88	106.83	108.77	110.71	112.65	114.59	116.54	118.48	120.42	122.36	124.31	11.03
6	126.34	128.39	130.44	132.49	134.54	136.60	138.65	140.70	142.75	144.80	146.86	148.91	11.56
7	150.96	153.01	155.06	157.12	159.17	161.22	163.27	165.32	167.37	169.43	171.48	173.53	12.09
8	175.65	177.79	179.92	182.06	184.20	186.33	188.47	190.60	192.74	194.88	197.01	199.15	12.63
9	201.29	203.42	205.56	207.70	209.83	211.97	214.10	216.24	218.38	220.51	222.65	224.79	13.16
10	226.98	229.18	231.38	233.58	235.78	237.98	240.18	242.39	244.59	246.79	248.99	251.19	13.70
11	253.39	255.60	257.80	260.00	262.20	264.40	266.60	268.80	271.01	273.21	275.41	277.61	14.23
12	279.85	282.10	284.35	286.61	288.86	291.11	293.36	295.61	297.86	300.12	302.37	304.62	14.77
13	306.87	309.12	311.37	313.63	315.88	318.13	320.38	322.63	324.88	327.13	329.39	331.64	15.30
14	333.92	336.21	338.50	340.79	343.08	345.37	347.66	349.95	352.24	354.53	356.82	359.11	15.83
15	361.40	363.68	365.97	368.26	370.55	372.84	375.13	377.42	379.71	382.00	384.29	386.58	16.36

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
16	388.90	391.22	393.53	395.86	398.18	400.49	402.81	405.14	407.45	409.77	412.09	414.41	16.90
17	416.73	419.05	421.37	423.69	426.01	428.33	430.65	432.97	435.29	437.61	439.93	442.25	17.43
18	444.59	446.94	449.28	451.63	453.97	456.32	458.66	461.01	463.35	465.70	468.04	470.39	17.95
19	472.73	475.07	477.42	479.76	482.11	484.45	486.80	489.14	491.49	493.83	496.18	498.52	18.48
20	500.88	503.25	505.61	507.98	510.34	512.71	515.07	517.44	519.81	522.17	524.54	526.90	19.01
21	529.27	531.63	534.00	536.36	538.73	541.09	543.46	545.82	548.19	550.56	552.92	555.29	19.54
22	557.67	560.05	562.43	564.82	567.20	569.58	571.97	574.35	576.73	579.12	581.50	583.88	20.06
23	586.27	588.65	591.04	593.42	595.80	598.19	600.57	602.95	605.34	607.72	610.10	612.49	20.59
24	614.88	617.28	619.68	622.08	624.48	626.88	629.28	631.68	634.08	636.48	638.88	641.28	21.11
25	643.68	646.08	648.48	650.88	653.28	655.68	658.08	660.48	662.88	665.28	667.68	670.08	21.64
26	672.49	674.91	677.32	679.74	682.16	684.57	686.99	689.40	691.82	694.23	696.65	699.06	22.16
27	701.48	703.89	706.31	708.72	711.14	713.55	715.97	718.38	720.80	723.22	725.63	728.05	22.68
28	730.47	732.90	735.33	737.76	740.19	742.62	745.06	747.49	749.92	752.35	754.78	757.21	23.21
29	759.64	762.07	764.50	766.93	769.36	771.79	774.22	776.65	779.08	781.51	783.94	786.37	23.73
30	788.81	791.26	793.70	796.15	798.60	801.04	803.49	805.93	808.38	810.82	813.27	815.71	24.25
31	818.16	820.60	823.05	825.49	827.94	830.39	832.83	835.28	837.72	840.17	842.61	845.06	24.78

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 2 OF 4

139

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
32	847.51	849.97	852.43	854.89	857.35	859.81	862.27	864.73	867.19	869.65	872.11	874.57	25.30
33	877.03	879.49	881.95	884.41	886.87	889.33	891.79	894.25	896.71	899.17	901.63	904.09	25.82
34	906.56	909.03	911.50	913.98	916.45	918.92	921.40	923.87	926.34	928.82	931.29	933.76	26.34
35	936.24	938.71	941.18	943.66	946.13	948.60	951.08	953.55	956.03	958.50	960.97	963.45	26.87
36	965.93	968.42	970.90	973.39	975.87	978.36	980.85	983.33	985.82	988.31	990.79	993.28	27.39
37	995.76	998.25	1000.74	1003.22	1005.71	1008.20	1010.68	1013.17	1015.65	1018.14	1020.63	1023.11	27.91
38	1025.61	1028.11	1030.61	1033.10	1035.60	1038.10	1040.60	1043.10	1045.59	1048.09	1050.59	1053.09	28.43
39	1055.59	1058.08	1060.58	1063.08	1065.58	1068.08	1070.57	1073.07	1075.57	1078.07	1080.57	1083.06	28.96
40	1085.57	1088.08	1090.59	1093.09	1095.60	1098.11	1100.62	1103.13	1105.63	1108.14	1110.65	1113.16	29.48
41	1115.67	1118.17	1120.68	1123.19	1125.70	1128.21	1130.11	1131.86	1133.62	1135.37	1137.13	1138.88	30.00
42	1140.64	1142.39	1144.15	1145.90	1147.66	1149.42	1151.17	1152.93	1154.68	1156.44	1158.19	1159.95	30.43
43	1161.70	1163.46	1165.21	1166.97	1168.73	1170.48	1172.16	1173.83	1175.50	1177.16	1178.83	1180.50	30.80
44	1182.16	1183.83	1185.50	1187.16	1188.83	1190.50	1192.16	1193.83	1195.50	1197.16	1198.83	1200.50	31.17
45	1202.16	1203.83	1205.50	1207.16	1208.83	1210.49	1212.17	1213.85	1215.52	1217.20	1218.87	1220.55	31.53
46	1222.23	1223.90	1225.58	1227.26	1228.93	1230.61	1232.28	1233.96	1235.64	1237.31	1238.99	1240.67	31.89
47	1242.34	1244.02	1245.69	1247.37	1249.05	1250.72	1252.41	1254.09	1255.78	1257.46	1259.15	1260.83	32.27

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 3 OF 4

140

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
48	1262.52	1264.20	1265.89	1267.57	1269.25	1270.94	1272.62	1274.31	1275.99	1277.68	1279.36	1281.05	32.64
49	1282.73	1284.42	1286.10	1287.79	1289.47	1291.16	1292.85	1294.54	1296.23	1297.93	1299.62	1301.31	33.02
50	1303.01	1304.70	1306.39	1308.09	1309.78	1311.47	1313.16	1314.86	1316.55	1318.24	1319.94	1321.63	33.41
51	1323.32	1325.02	1326.71	1328.40	1330.09	1331.79	1332.80	1333.65	1334.50	1335.35	1336.19	1337.04	33.80
52	1337.89	1338.74											34.08

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.067 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

141

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
0	299	634	968	1303	1637	1971	2306	2640	2974	3309	3643	3977	8.53
1	4312	4646	4981	5315	5649	5984	6318	6652	6987	7321	7655	7990	8.95
2	8442	8908	9374	9839	10305	10771	11237	11703	12169	12634	13100	13566	9.37
3	14032	14498	14964	15429	15895	16361	16827	17293	17759	18224	18690	19156	9.88
4	19657	20161	20666	21170	21675	22179	22684	23188	23693	24197	24702	25206	10.40
5	25711	26215	26720	27224	27729	28233	28738	29242	29747	30251	30756	31260	10.93
6	31791	32325	32859	33393	33927	34461	34996	35530	36064	36598	37132	37666	11.45
7	38200	38734	39268	39802	40336	40870	41404	41938	42473	43007	43541	44075	11.99
8	44629	45186	45743	46300	46857	47414	47971	48527	49084	49641	50198	50755	12.52
9	51312	51869	52426	52983	53540	54096	54653	55210	55767	56324	56881	57438	13.05
10	58010	58585	59159	59734	60308	60883	61457	62032	62606	63181	63755	64330	13.59
11	64904	65479	66053	66628	67202	67776	68351	68925	69500	70074	70649	71223	14.12
12	71810	72398	72986	73574	74162	74750	75338	75926	76514	77102	77690	78278	14.66
13	78866	79454	80042	80630	81218	81806	82394	82982	83570	84158	84746	85334	15.19
14	85931	86530	87128	87726	88325	88923	89521	90120	90718	91316	91914	92513	15.72
15	93111	93709	94308	94906	95504	96103	96701	97299	97897	98496	99094	99692	16.25

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
16	100298	100904	101511	102117	102724	103330	103937	104543	105149	105756	106362	106969	16.79
17	107575	108182	108788	109395	110001	110607	111214	111820	112427	113033	113640	114246	17.32
18	114859	115472	116085	116698	117311	117924	118537	119150	119763	120376	120989	121602	17.84
19	122215	122828	123441	124054	124667	125280	125893	126506	127119	127732	128345	128958	18.37
20	129576	130195	130814	131432	132051	132669	133288	133906	134525	135144	135762	136381	18.90
21	136999	137618	138236	138855	139474	140092	140711	141329	141948	142567	143185	143804	19.43
22	144427	145050	145673	146297	146920	147543	148167	148790	149414	150037	150660	151284	19.95
23	151907	152530	153154	153777	154401	155024	155647	156271	156894	157518	158141	158764	20.48
24	159392	160019	160647	161275	161902	162530	163158	163786	164413	165041	165669	166297	21.00
25	166924	167552	168180	168808	169435	170063	170691	171318	171946	172574	173202	173829	21.53
26	174461	175093	175724	176356	176988	177620	178251	178883	179515	180147	180778	181410	22.05
27	182042	182674	183305	183937	184569	185201	185832	186464	187096	187728	188359	188991	22.57
28	189627	190262	190898	191534	192169	192805	193441	194076	194712	195348	195984	196619	23.10
29	197255	197891	198526	199162	199798	200433	201069	201705	202341	202976	203612	204248	23.62
30	204887	205527	206166	206806	207445	208085	208725	209364	210004	210644	211283	211923	24.14
31	212563	213202	213842	214481	215121	215761	216400	217040	217680	218319	218959	219598	24.66

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
32	220242	220885	221528	222172	222815	223459	224102	224745	225389	226032	226676	227319	25.19
33	227962	228606	229249	229893	230536	231179	231823	232466	233110	233753	234396	235040	25.71
34	235686	236333	236980	237627	238274	238921	239568	240215	240862	241509	242156	242803	26.23
35	243450	244097	244744	245391	246038	246685	247332	247979	248626	249273	249920	250567	26.75
36	251217	251868	252518	253169	253819	254469	255120	255770	256421	257071	257722	258372	27.28
37	259022	259673	260323	260974	261624	262274	262925	263575	264226	264876	265527	266177	27.80
38	266830	267484	268137	268791	269444	270098	270751	271405	272058	272712	273365	274019	28.32
39	274673	275326	275979	276633	277287	277940	278594	279247	279901	280554	281208	281861	28.84
40	282517	283173	283829	284486	285142	285798	286454	287110	287766	288422	289078	289734	29.36
41	290391	291047	291703	292359	293015	293671	294174	294659	295144	295629	296114	296599	29.89
42	297084	297569	298054	298539	299024	299509	299995	300480	300965	301450	301935	302420	30.33
43	302905	303390	303875	304360	304845	305330	305771	306207	306643	307079	307514	307950	30.72
44	308386	308822	309258	309694	310130	310566	311001	311437	311873	312309	312745	313181	31.09
45	313617	314052	314488	314924	315360	315796	316234	316673	317111	317549	317988	318426	31.45
46	318865	319303	319742	320180	320619	321057	321495	321934	322372	322811	323249	323688	31.81
47	324126	324565	325003	325441	325880	326318	326759	327199	327640	328081	328522	328962	32.18

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
48	329403	329844	330284	330725	331166	331607	332047	332488	332929	333370	333810	334251	32.56
49	334692	335132	335573	336014	336454	336895	337338	337781	338224	338666	339109	339552	32.94
50	339995	340438	340881	341324	341766	342209	342652	343095	343538	343981	344424	344866	33.32
51	345309	345752	346195	346638	347081	347523	347769	347991	348213	348435	348657	348879	33.71
52	349101	349323	349545	349767	349990	350212							33.99

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 350682.25 GALLONS VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.14	2.42	3.70	4.97	6.25	7.53	8.81	10.08	11.36	12.64	13.91	15.19	8.53
1	16.47	17.74	19.02	20.30	21.58	22.85	24.13	25.41	26.68	27.96	29.24	30.51	8.95
2	32.24	34.02	35.80	37.58	39.36	41.14	42.92	44.70	46.47	48.25	50.03	51.81	9.37
3	53.59	55.37	57.15	58.93	60.71	62.49	64.27	66.04	67.82	69.60	71.38	73.16	9.88
4	75.07	77.00	78.93	80.85	82.78	84.71	86.63	88.56	90.49	92.41	94.34	96.27	10.40
5	98.19	100.12	102.05	103.97	105.90	107.83	109.75	111.68	113.61	115.53	117.46	119.39	10.93
6	121.42	123.46	125.50	127.54	129.58	131.62	133.65	135.69	137.73	139.77	141.81	143.85	11.45
7	145.89	147.93	149.97	152.01	154.05	156.09	158.13	160.17	162.21	164.25	166.29	168.33	11.99
8	170.45	172.57	174.70	176.83	178.96	181.08	183.21	185.34	187.46	189.59	191.72	193.84	12.52
9	195.97	198.10	200.22	202.35	204.48	206.60	208.73	210.86	212.99	215.11	217.24	219.37	13.05
10	221.55	223.75	225.94	228.14	230.33	232.52	234.72	236.91	239.11	241.30	243.49	245.69	13.59
11	247.88	250.08	252.27	254.46	256.66	258.85	261.05	263.24	265.43	267.63	269.82	272.02	14.12
12	274.26	276.50	278.75	280.99	283.24	285.49	287.73	289.98	292.22	294.47	296.71	298.96	14.66
13	301.21	303.45	305.70	307.94	310.19	312.43	314.68	316.93	319.17	321.42	323.66	325.91	15.19
14	328.19	330.47	332.76	335.04	337.33	339.61	341.90	344.18	346.47	348.75	351.04	353.32	15.72
15	355.61	357.89	360.18	362.46	364.75	367.03	369.32	371.60	373.89	376.18	378.46	380.74	16.25

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	383.06	385.37	387.69	390.01	392.32	394.64	396.95	399.2[illegible]	401.59	403.90	406.22	408.54	16.79
17	410.85	413.17	415.48	417.80	420.12	422.43	424.75	427.06	429.38	431.70	434.01	436.33	17.32
18	438.67	441.01	443.35	445.69	448.03	450.37	452.72	455.06	457.40	459.74	462.08	464.42	17.84
19	466.76	469.10	471.45	473.79	476.13	478.47	480.81	483.15	485.49	487.84	490.18	492.52	18.37
20	494.88	497.24	499.60	501.97	504.33	506.69	509.05	511.42	513.78	516.14	518.50	520.86	18.90
21	523.23	525.59	527.95	530.31	532.68	535.04	537.40	539.76	542.13	544.49	546.85	549.21	19.43
22	551.59	553.97	556.35	558.74	561.12	563.50	565.88	568.26	570.64	573.02	575.40	577.78	19.95
23	580.16	582.54	584.92	587.31	589.69	592.07	594.45	596.83	599.21	601.59	603.97	606.35	20.48
24	608.75	611.15	613.54	615.94	618.34	620.74	623.13	625.53	627.93	630.32	632.72	635.12	21.00
25	637.52	639.91	642.31	644.71	647.11	649.50	651.90	654.30	656.70	659.09	661.49	663.89	21.53
26	666.30	668.71	671.13	673.54	675.95	678.36	680.78	683.19	685.60	688.02	690.43	692.84	22.05
27	695.25	697.67	700.08	702.49	704.91	707.32	709.73	712.14	714.56	716.97	719.38	721.79	22.57
28	724.22	726.65	729.08	731.50	733.93	736.36	738.79	741.22	743.64	746.07	748.50	750.93	23.10
29	753.36	755.78	758.21	760.64	763.07	765.50	767.92	770.35	772.78	775.21	777.63	780.06	23.62
30	782.50	784.95	787.39	789.83	792.28	794.72	797.16	799.60	802.05	804.49	806.93	809.38	24.14
31	811.82	814.26	816.70	819.15	821.59	824.03	826.48	828.92	831.36	833.80	836.25	838.69	24.66

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	841.15	843.60	846.06	848.52	850.98	853.43	855.89	858.35	860.80	863.26	865.72	868.18	25.19
33	870.63	873.09	875.55	878.01	880.46	882.92	885.38	887.83	890.29	892.75	895.21	897.66	25.71
34	900.13	902.60	905.07	907.55	910.02	912.49	914.96	917.43	919.90	922.37	924.84	927.31	26.23
35	929.79	932.26	934.73	937.20	939.67	942.14	944.61	947.08	949.55	952.02	954.50	956.97	26.75
36	959.45	961.93	964.42	966.90	969.39	971.87	974.35	976.84	979.32	981.81	984.29	986.77	27.28
37	989.26	991.74	994.23	996.71	999.19	1001.68	1004.16	1006.65	1009.13	1011.61	1014.10	1016.58	27.80
38	1019.08	1021.57	1024.07	1026.57	1029.06	1031.56	1034.05	1036.55	1039.04	1041.54	1044.04	1046.53	28.32
39	1049.03	1051.52	1054.02	1056.52	1059.01	1061.51	1064.00	1066.50	1069.00	1071.49	1073.99	1076.48	28.84
40	1078.99	1081.49	1084.00	1086.51	1089.01	1091.52	1094.02	1096.53	1099.04	1101.54	1104.05	1106.55	29.36
41	1109.06	1111.57	1114.07	1116.58	1119.08	1121.59	1123.51	1125.36	1127.21	1129.07	1130.92	1132.77	29.89
42	1134.62	1136.48	1138.33	1140.18	1142.03	1143.89	1145.74	1147.59	1149.44	1151.30	1153.15	1155.00	30.33
43	1156.85	1158.71	1160.56	1162.41	1164.26	1166.12	1167.80	1169.46	1171.13	1172.79	1174.46	1176.12	30.72
44	1177.79	1179.45	1181.12	1182.78	1184.45	1186.11	1187.78	1189.44	1191.11	1192.77	1194.43	1196.10	31.09
45	1197.76	1199.43	1201.09	1202.76	1204.42	1206.09	1207.76	1209.44	1211.11	1212.78	1214.46	1216.13	31.45
46	1217.81	1219.48	1221.16	1222.83	1224.51	1226.18	1227.85	1229.53	1231.20	1232.88	1234.55	1236.23	31.81
47	1237.90	1239.58	1241.25	1242.93	1244.60	1246.27	1247.96	1249.64	1251.32	1253.01	1254.69	1256.37	32.18

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

2 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 61-67 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1258.06	1259.74	1261.42	1263.11	1264.79	1266.47	1268.15	1269.84	1271.52	1273.20	1274.89	1276.57	32.56
49	1278.25	1279.94	1281.62	1283.30	1284.99	1286.67	1288.36	1290.05	1291.74	1293.43	1295.13	1296.82	32.94
50	1298.51	1300.20	1301.89	1303.58	1305.27	1306.97	1308.66	1310.35	1312.04	1313.73	1315.42	1317.11	33.32
51	1318.80	1320.50	1322.19	1323.88	1325.57	1327.26	1328.20	1329.05	1329.89	1330.74	1331.59	1332.44	33.71
52	1333.29	1334.14	1334.98	1335.83	1336.68	1337.53							33.99

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1339.33 S.W.LTON VCG = 34.11 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.075 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	381	909	1438	1966	2495	3023	3552	4080	4609	5137	5666	6194	8.53
1	6723	7251	7780	8308	8837	9365	9894	10422	10951	11479	12008	12536	9.04
2	13098	13672	14246	14821	15395	15969	16544	17118	17692	18267	18841	19415	9.55
3	19990	20564	21138	21712	22287	22861	23435	24010	24584	25158	25733	26307	10.07
4	26906	27513	28121	28729	29337	29945	30553	31161	31769	32377	32985	33593	10.59
5	34201	34809	35417	36025	36633	37240	37848	38456	39064	39672	40280	40888	11.11
6	41514	42146	42778	43411	44043	44675	45307	45940	46572	47204	47837	48469	11.64
7	49101	49733	50366	50998	51630	52263	52895	53527	54159	54792	55424	56056	12.16
8	56701	57350	58000	58649	59298	59948	60597	61246	61896	62545	63195	63844	12.69
9	64493	65143	65792	66441	67091	67740	68389	69039	69688	70337	70987	71636	13.21
10	72294	72954	73615	74275	74936	75596	76257	76917	77578	78238	78899	79559	13.74
11	80220	80881	81541	82202	82862	83523	84183	84844	85504	86165	86825	87486	14.26
12	88151	88818	89485	90152	90818	91485	92152	92819	93486	94153	94820	95486	14.79
13	96153	96820	97487	98154	98821	99488	100155	100821	101488	102155	102822	103489	15.31
14	104158	104827	105496	106166	106835	107504	108173	108843	109512	110181	110850	111520	15.83
15	112189	112858	113528	114197	114866	115535	116205	116874	117543	118213	118882	119551	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	120221	120891	121561	122231	122900	123570	124240	124910	125580	126250	126920	127590	16.86
17	128260	128929	129599	130269	130939	131609	132279	132949	133619	134289	134958	135628	17.37
18	136298	136968	137638	138309	138979	139649	140319	140989	141659	142329	142999	143669	17.89
19	144339	145009	145679	146350	147020	147690	148360	149030	149700	150370	151040	151710	18.40
20	152380	153050	153721	154391	155061	155731	156401	157071	157742	158412	159082	159752	18.91
21	160422	161092	161762	162433	163103	163773	164443	165113	165783	166454	167124	167794	19.42
22	168451	169104	169756	170408	171061	171713	172365	173018	173670	174323	174975	175627	19.92
23	176280	176932	177584	178237	178889	179541	180194	180846	181498	182151	182803	183455	20.42
24	184069	184668	185267	185866	186465	187064	187663	188261	188860	189459	190058	190657	20.91
25	191256	191855	192453	193052	193651	194250	194849	195448	196047	196646	197244	197843	21.37
26	198442	199041	199640	200239	200838	201436	202035	202634	203233	203832	204431	205030	21.83
27	205629	206227	206826	207425	208024	208623	209222	209821	210419	211018	211617	212216	22.29
28	212815	213414	214013	214612	215210	215809	216408	217007	217606	218205	218804	219403	22.75
29	220001	220600	221199	221798	222397	222996	223595	224193	224792	225391	225990	226589	23.22
30	227188	227787	228386	228984	229583	230182	230781	231380	231979	232578	233176	233775	23.69
31	234374	234973	235572	236171	236770	237369	237967	238566	239165	239764	240363	240962	24.16

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	241561	242159	242758	243357	243956	244555	245154	245753	246351	246950	247549	248148	24.63
33	248747	249346	249945	250544	251142	251741	252340	252939	253538	254137	254736	255334	25.11
34	255933	256532	257131	257730	258329	258928	259526	260125	260724	261323	261922	262521	25.59
35	263120	263718	264317	264916	265515	266114	266713	267312	267910	268509	269108	269707	26.06
36	270306	270905	271504	272103	272701	273300	273899	274498	275097	275696	276295	276893	26.54
37	277492	278091	278690	279289	279888	280487	281085	281684	282283	282882	283481	284080	27.02
38	284679	285277	285876	286475	287074	287673	288272	288871	289469	290068	290667	291266	27.50
39	291865	292464	293063	293662	294260	294859	295458	296057	296656	297255	297854	298452	27.98
40	299051	299650	300249	300848	301447	302046	302644	303243	303842	304441	305040	305639	28.47
41	306238	306836	307435	308034	308633	309232	309701	310119	310538	310957	311375	311794	28.95
42	312212	312631	313049	313468	313886	314305	314723	315142	315560	315979	316397	316816	29.35
43	317235	317653	318072	318490	318909	319327	319746	320164	320583	321001	321420	321838	29.70
44	322257	322675	323094	323513	323931	324350	324768	325187	325605	326024	326442	326861	30.05
45	327279	327698	328116	328535	328953	329372	329791	330209	330628	331046	331465	331883	30.40
46	332302	332720	333139	333557	333976	334394	334813	335231	335650	336069	336487	336906	30.76
47	337324	337743	338161	338580	338998	339417	339835	340254	340672	341091	341509	341928	31.12

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	342346	342765	343183	343602	344021	344439	344858	345276	345695	346113	346532	346950	31.48
49	347369	347787	348206	348624	349043	349461	349880	350298	350717	351136	351554	351973	31.85
50	352391	352810	353228	353647	354065	354484	354902	355321	355739	356158	356576	356995	32.23
51	357414	357832	358251	358669	359088	359506	359767	359967	360167				32.60

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 20

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
0	1.45	3.47	5.49	7.51	9.53	11.55	13.56	15.58	17.60	19.62	21.64	23.66	8.53
1	25.68	27.69	29.71	31.73	33.75	35.77	37.79	39.80	41.82	43.84	45.86	47.88	9.04
2	50.02	52.22	54.41	56.60	58.80	60.99	63.18	65.38	67.57	69.76	71.96	74.15	9.55
3	76.34	78.54	80.73	82.92	85.12	87.31	89.50	91.70	93.89	96.08	98.28	100.47	10.07
4	102.76	105.08	107.40	109.72	112.04	114.37	116.69	119.01	121.33	123.65	125.98	128.30	10.59
5	130.62	132.94	135.26	137.59	139.91	142.23	144.55	146.87	149.19	151.52	153.84	156.16	11.11
6	158.55	160.96	163.38	165.79	168.21	170.62	173.04	175.45	177.87	180.28	182.70	185.11	11.64
7	187.53	189.94	192.36	194.77	197.19	199.60	202.02	204.43	206.85	209.26	211.68	214.09	12.16
8	216.55	219.03	221.51	223.99	226.47	228.95	231.43	233.91	236.39	238.87	241.35	243.83	12.69
9	246.31	248.79	251.27	253.75	256.23	258.71	261.19	263.67	266.15	268.63	271.11	273.59	13.21
10	276.10	278.63	281.15	283.67	286.19	288.72	291.24	293.76	296.28	298.81	301.33	303.85	13.74
11	306.38	308.90	311.42	313.94	316.47	318.99	321.51	324.03	326.56	329.08	331.60	334.13	14.26
12	336.67	339.21	341.76	344.31	346.85	349.40	351.95	354.49	357.04	359.59	362.14	364.68	14.79
13	367.23	369.78	372.32	374.87	377.42	379.96	382.51	385.06	387.60	390.15	392.70	395.24	15.31
14	397.80	400.35	402.91	405.47	408.02	410.58	413.14	415.69	418.25	420.80	423.36	425.92	15.83
15	428.47	431.03	433.58	436.14	438.70	441.25	443.81	446.37	448.92	451.48	454.03	456.59	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
16	459.15	461.71	464.26	466.82	469.38	471.94	474.50	477.06	479.61	482.17	484.73	487.29	16.86
17	489.85	492.41	494.97	497.52	500.08	502.64	505.20	507.76	510.32	512.87	515.43	517.99	17.37
18	520.55	523.11	525.67	528.23	530.79	533.35	535.91	538.46	541.02	543.58	546.14	548.70	17.89
19	551.26	553.82	556.38	558.94	561.50	564.06	566.62	569.17	571.73	574.29	576.85	579.41	18.40
20	581.97	584.53	587.09	589.65	592.21	594.77	597.33	599.89	602.45	605.01	607.57	610.12	18.91
21	612.68	615.24	617.80	620.36	622.92	625.48	628.04	630.60	633.16	635.72	638.28	640.84	19.42
22	643.35	645.84	648.33	650.82	653.31	655.81	658.30	660.79	663.28	665.77	668.26	670.75	19.92
23	673.25	675.74	678.23	680.72	683.21	685.70	688.20	690.69	693.18	695.67	698.16	700.65	20.42
24	703.00	705.28	707.57	709.86	712.15	714.43	716.72	719.01	721.29	723.58	725.87	728.16	20.91
25	730.44	732.73	735.02	737.31	739.59	741.88	744.17	746.45	748.74	751.03	753.32	755.60	21.37
26	757.89	760.18	762.46	764.75	767.04	769.33	771.61	773.90	776.19	778.47	780.76	783.05	21.83
27	785.34	787.62	789.91	792.20	794.49	796.77	799.06	801.35	803.63	805.92	808.21	810.50	22.29
28	812.78	815.07	817.36	819.64	821.93	824.22	826.51	828.79	831.08	833.37	835.65	837.94	22.75
29	840.23	842.52	844.80	847.09	849.38	851.66	853.95	856.24	858.53	860.81	863.10	865.39	23.22
30	867.68	869.96	872.25	874.54	876.82	879.11	881.40	883.69	885.97	888.26	890.55	892.83	23.69
31	895.12	897.41	899.70	901.98	904.27	906.56	908.84	911.13	913.42	915.71	917.99	920.28	24.16

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
32	922.57	924.85	927.14	929.43	931.72	934.00	936.29	938.58	940.86	943.15	945.44	947.73	24.63
33	950.01	952.30	954.59	956.88	959.16	961.45	963.74	966.02	968.31	970.60	972.89	975.17	25.11
34	977.46	979.75	982.03	984.32	986.61	988.90	991.18	993.47	995.76	998.04	1000.33	1002.62	25.59
35	1004.91	1007.19	1009.48	1011.77	1014.05	1016.34	1018.63	1020.92	1023.20	1025.49	1027.78	1030.06	26.06
36	1032.35	1034.64	1036.93	1039.21	1041.50	1043.79	1046.08	1048.36	1050.65	1052.94	1055.22	1057.51	26.54
37	1059.80	1062.09	1064.37	1066.66	1068.95	1071.23	1073.52	1075.81	1078.10	1080.38	1082.67	1084.96	27.02
38	1087.24	1089.53	1091.82	1094.11	1096.39	1098.68	1100.97	1103.25	1105.54	1107.83	1110.12	1112.40	27.50
39	1114.69	1116.98	1119.26	1121.55	1123.84	1126.13	1128.41	1130.70	1132.99	1135.27	1137.56	1139.85	27.98
40	1142.14	1144.42	1146.71	1149.00	1151.28	1153.57	1155.86	1158.15	1160.43	1162.72	1165.01	1167.29	28.47
41	1169.58	1171.87	1174.16	1176.44	1178.73	1181.02	1182.81	1184.41	1186.01	1187.60	1189.20	1190.80	28.95
42	1192.40	1194.00	1195.60	1197.20	1198.79	1200.39	1201.99	1203.59	1205.19	1206.79	1208.38	1209.98	29.35
43	1211.58	1213.18	1214.78	1216.38	1217.98	1219.57	1221.17	1222.77	1224.37	1225.97	1227.57	1229.16	29.70
44	1230.76	1232.36	1233.96	1235.56	1237.16	1238.76	1240.35	1241.95	1243.55	1245.15	1246.75	1248.35	30.05
45	1249.94	1251.54	1253.14	1254.74	1256.34	1257.94	1259.54	1261.13	1262.73	1264.33	1265.93	1267.53	30.40
46	1269.13	1270.72	1272.32	1273.92	1275.52	1277.12	1278.72	1280.32	1281.91	1283.51	1285.11	1286.71	30.76
47	1288.31	1289.91	1291.50	1293.10	1294.70	1296.30	1297.90	1299.50	1301.10	1302.69	1304.29	1305.89	31.12

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
48	1307.49	1309.09	1310.69	1312.28	1313.88	1315.48	1317.08	1318.68	1320.28	1321.88	1323.47	1325.07	31.48
49	1326.67	1328.27	1329.87	1331.47	1333.06	1334.66	1336.26	1337.86	1339.46	1341.06	1342.65	1344.25	31.85
50	1345.85	1347.45	1349.05	1350.65	1352.25	1353.84	1355.44	1357.04	1358.64	1360.24	1361.84	1363.43	32.23
51	1365.03	1366.63	1368.23	1369.83	1371.43	1373.03	1374.02	1374.79	1375.55				32.60

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
48	341251	341669	342088	342506	342925	343343	343762	344180	344599	345017	345436	345854	31.40
49	346273	346692	347110	347529	347947	348366	348784	349203	349621	350040	350458	350877	31.77
50	351295	351714	352132	352551	352970	353388	353807	354225	354644	355062	355481	355899	32.15
51	356318	356736	357155	357573	357992	358410	358646	358852	359058	359264	359470	359676	32.52
52	359882	360088											32.79

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
32	239993	240592	241190	241789	242388	242987	243586	244185	244784	245383	245981	246580	24.53
33	247179	247778	248377	248976	249575	250173	250772	251371	251970	252569	253168	253767	25.01
34	254365	254964	255563	256162	256761	257360	257959	258557	259156	259755	260354	260953	25.48
35	261552	262151	262749	263348	263947	264546	265145	265744	266343	266942	267540	268139	25.96
36	268738	269337	269936	270535	271134	271732	272331	272930	273529	274128	274727	275326	26.44
37	275924	276523	277122	277721	278320	278919	279518	280116	280715	281314	281913	282512	26.92
38	283111	283710	284309	284907	285506	286105	286704	287303	287902	288501	289099	289698	27.40
39	290297	290896	291495	292094	292693	293291	293890	294489	295088	295687	296286	296885	27.88
40	297484	298082	298681	299280	299879	300478	301077	301676	302274	302873	303472	304071	28.36
41	304670	305269	305868	306466	307065	307664	308126	308565	309004	309443	309883	310322	28.84
42	310761	311200	311640	312079	312518	312957	313397	313836	314275	314715	315154	315593	29.26
43	316032	316472	316911	317350	317789	318229	318650	319069	319487	319906	320324	320743	29.61
44	321161	321580	321998	322417	322835	323254	323672	324091	324509	324928	325346	325765	29.97
45	326184	326602	327021	327439	327858	328276	328695	329113	329532	329950	330369	330787	30.32
46	331206	331624	332043	332462	332880	333299	333717	334136	334554	334973	335391	335810	30.68
47	336228	336647	337065	337484	337902	338321	338740	339158	339576	339995	340414	340832	31.04

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
16	118469	119139	119809	120479	121149	121818	122488	123158	123828	124498	125167	125837	16.75
17	126507	127177	127847	128516	129186	129856	130526	131196	131865	132535	133205	133875	17.26
18	134545	135215	135885	136555	137225	137895	138565	139235	139905	140575	141245	141915	17.78
19	142585	143255	143925	144596	145266	145936	146606	147276	147946	148616	149286	149956	18.29
20	150626	151296	151966	152637	153307	153977	154647	155317	155987	156657	157328	157998	18.80
21	158668	159338	160008	160678	161348	162019	162689	163359	164029	164699	165369	166039	19.31
22	166701	167362	168022	168683	169344	170004	170665	171325	171986	172646	173307	173967	19.81
23	174628	175289	175949	176610	177270	177931	178591	179252	179912	180573	181234	181894	20.31
24	182502	183100	183699	184298	184897	185496	186095	186694	187292	187891	188490	189089	20.81
25	189688	190287	190886	191485	192083	192682	193281	193880	194479	195078	195677	196275	21.27
26	196874	197473	198072	198671	199270	199869	200468	201066	201665	202264	202863	203462	21.73
27	204061	204660	205259	205857	206456	207055	207654	208253	208852	209451	210050	210648	22.19
28	211247	211846	212445	213044	213643	214242	214840	215439	216038	216637	217236	217835	22.65
29	218434	219033	219631	220230	220829	221428	222027	222626	223225	223824	224422	225021	23.12
30	225620	226219	226818	227417	228016	228614	229213	229812	230411	231010	231609	232208	23.59
31	232806	233405	234004	234603	235202	235801	236400	236998	237597	238196	238795	239394	24.06

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES												VCG ABV. B.L.
	0	1	2	3	4	5	6	7	8	9	10	11	
0	401	867	1332	1798	2263	2729	3194	3660	4125	4591	5056	5522	8.53
1	5987	6453	6918	7384	7849	8315	8780	9246	9711	10177	10642	11108	8.98
2	11663	12233	12803	13372	13942	14511	15081	15651	16220	16790	17360	17929	9.44
3	18499	19069	19638	20208	20778	21347	21917	22487	23056	23626	24195	24765	9.96
4	25365	25969	26574	27179	27783	28388	28992	29597	30201	30806	31411	32015	10.48
5	32620	33224	33829	34434	35038	35643	36247	36852	37456	38061	38666	39270	11.00
6	39897	40526	41156	41786	42416	43046	43676	44306	44936	45566	46195	46825	11.52
7	47455	48085	48715	49345	49975	50605	51235	51864	52494	53124	53754	54384	12.05
8	55029	55677	56324	56972	57620	58268	58915	59563	60211	60858	61506	62154	12.58
9	62801	63449	64097	64745	65392	66040	66688	67335	67983	68631	69278	69926	13.10
10	70584	71243	71903	72562	73222	73881	74541	75200	75860	76519	77178	77838	13.63
11	78497	79157	79816	80476	81135	81795	82454	83114	83773	84433	85092	85752	14.15
12	86417	87083	87749	88416	89082	89748	90415	91081	91747	92414	93080	93746	14.67
13	94412	95079	95745	96411	97078	97744	98410	99076	99743	100409	101075	101742	15.20
14	102410	103079	103749	104418	105087	105756	106425	107094	107763	108432	109101	109770	15.72
15	110440	111109	111778	112447	113116	113785	114454	115123	115792	116461	117131	117800	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.21

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.53	3.31	5.09	6.87	8.64	10.42	12.20	13.98	15.75	17.53	19.31	21.09	8.53
1	22.87	24.64	26.42	28.20	29.98	31.76	33.53	35.31	37.09	38.87	40.65	42.42	8.98
2	44.54	46.72	48.90	51.07	53.25	55.42	57.60	59.77	61.95	64.12	66.30	68.48	9.44
3	70.65	72.83	75.00	77.18	79.35	81.53	83.70	85.88	88.06	90.23	92.41	94.58	9.96
4	96.87	99.18	101.49	103.80	106.11	108.42	110.73	113.04	115.35	117.65	119.96	122.27	10.48
5	124.58	126.89	129.20	131.51	133.82	136.13	138.44	140.74	143.05	145.36	147.67	149.98	11.00
6	152.37	154.78	157.18	159.59	162.00	164.40	166.81	169.21	171.62	174.02	176.43	178.84	11.52
7	181.24	183.65	186.05	188.46	190.86	193.27	195.67	198.08	200.49	202.89	205.30	207.70	12.05
8	210.17	212.64	215.11	217.59	220.06	222.54	225.01	227.48	229.96	232.43	234.90	237.38	12.58
9	239.85	242.32	244.80	247.27	249.75	252.22	254.69	257.17	259.64	262.11	264.59	267.06	13.10
10	269.57	272.09	274.61	277.13	279.65	282.17	284.69	287.20	289.72	292.24	294.76	297.28	13.63
11	299.80	302.32	304.83	307.35	309.87	312.39	314.91	317.43	319.95	322.47	324.98	327.50	14.15
12	330.04	332.59	335.13	337.68	340.22	342.77	345.31	347.86	350.40	352.95	355.49	358.03	14.67
13	360.58	363.12	365.67	368.21	370.76	373.30	375.85	378.39	380.94	383.48	386.03	388.57	15.20
14	391.13	393.68	396.24	398.79	401.35	403.90	406.46	409.01	411.57	414.12	416.68	419.23	15.72
15	421.79	424.35	426.90	429.46	432.01	434.57	437.12	439.68	442.23	444.79	447.34	449.90	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	452.46	455.02	457.57	460.13	462.69	465.25	467.81	470.36	472.92	475.48	478.04	480.60	16.75
17	483.16	485.71	488.27	490.83	493.39	495.95	498.50	501.06	503.62	506.18	508.74	511.29	17.26
18	513.85	516.41	518.97	521.53	524.09	526.65	529.21	531.77	534.33	536.89	539.44	542.00	17.78
19	544.56	547.12	549.68	552.24	554.80	557.36	559.92	562.48	565.03	567.59	570.15	572.71	18.29
20	575.27	577.83	580.39	582.95	585.51	588.07	590.63	593.19	595.75	598.31	600.87	603.42	18.80
21	605.98	608.54	611.10	613.66	616.22	618.78	621.34	623.90	626.46	629.02	631.58	634.14	19.31
22	636.67	639.19	641.71	644.23	646.76	649.28	651.80	654.32	656.85	659.37	661.89	664.42	19.81
23	666.94	669.46	671.98	674.51	677.03	679.55	682.08	684.60	687.12	689.64	692.17	694.69	20.31
24	697.01	699.30	701.58	703.87	706.16	708.45	710.73	713.02	715.31	717.59	719.88	722.17	20.81
25	724.46	726.74	729.03	731.32	733.60	735.89	738.18	740.47	742.75	745.04	747.33	749.61	21.27
26	751.90	754.19	756.48	758.76	761.05	763.34	765.63	767.91	770.20	772.49	774.77	777.06	21.73
27	779.35	781.64	783.92	786.21	788.50	790.78	793.07	795.36	797.65	799.93	802.22	804.51	22.19
28	806.80	809.08	811.37	813.66	815.94	818.23	820.52	822.81	825.09	827.38	829.67	831.95	22.65
29	834.24	836.53	838.82	841.10	843.39	845.68	847.96	850.25	852.54	854.83	857.11	859.40	23.12
30	861.69	863.97	866.26	868.55	870.84	873.12	875.41	877.70	879.99	882.27	884.56	886.85	23.59
31	889.13	891.42	893.71	896.00	898.28	900.57	902.86	905.14	907.43	909.72	912.01	914.29	24.06

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52,440 FT.

C7-1000
SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	916.58	918.87	921.15	923.44	925.73	928.02	930.30	932.59	934.88	937.16	939.45	941.74	24.53
33	944.03	946.31	948.60	950.89	953.17	955.46	957.75	960.04	962.32	964.61	966.90	969.18	25.01
34	971.47	973.76	976.05	978.33	980.62	982.91	985.20	987.48	989.77	992.06	994.34	996.63	25.48
35	998.92	1001.21	1003.49	1005.78	1008.07	1010.35	1012.64	1014.93	1017.22	1019.50	1021.79	1024.08	25.96
36	1026.36	1028.65	1030.94	1033.23	1035.51	1037.80	1040.09	1042.37	1044.66	1046.95	1049.24	1051.52	26.44
37	1053.81	1056.10	1058.38	1060.67	1062.96	1065.25	1067.53	1069.82	1072.11	1074.40	1076.68	1078.97	26.92
38	1081.26	1083.54	1085.83	1088.12	1090.41	1092.69	1094.98	1097.27	1099.55	1101.84	1104.13	1106.42	27.40
39	1108.70	1110.99	1113.28	1115.56	1117.85	1120.14	1122.43	1124.71	1127.00	1129.29	1131.57	1133.86	27.88
40	1136.15	1138.44	1140.72	1143.01	1145.30	1147.58	1149.87	1152.16	1154.45	1156.73	1159.02	1161.31	28.36
41	1163.59	1165.88	1168.17	1170.46	1172.74	1175.03	1176.79	1178.47	1180.15	1181.83	1183.50	1185.18	28.84
42	1186.86	1188.54	1190.21	1191.89	1193.57	1195.25	1196.92	1198.60	1200.28	1201.96	1203.63	1205.31	29.26
43	1206.99	1208.67	1210.35	1212.02	1213.70	1215.38	1216.99	1218.59	1220.18	1221.78	1223.38	1224.98	29.61
44	1226.58	1228.18	1229.78	1231.37	1232.97	1234.57	1236.17	1237.77	1239.37	1240.96	1242.56	1244.16	29.97
45	1245.76	1247.36	1248.96	1250.55	1252.15	1253.75	1255.35	1256.95	1258.55	1260.15	1261.74	1263.34	30.32
46	1264.94	1266.54	1268.14	1269.74	1271.33	1272.93	1274.53	1276.13	1277.73	1279.33	1280.93	1282.52	30.68
47	1284.12	1285.72	1287.32	1288.92	1290.52	1292.11	1293.71	1295.31	1296.91	1298.51	1300.11	1301.71	31.04

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1303.30	1304.90	1306.50	1308.10	1309.70	1311.30	1312.89	1314.49	1316.09	1317.69	1319.29	1320.89	31.40
49	1322.49	1324.08	1325.68	1327.28	1328.88	1330.48	1332.08	1333.67	1335.27	1336.87	1338.47	1340.07	31.77
50	1341.67	1343.27	1344.86	1346.46	1348.06	1349.66	1351.26	1352.86	1354.45	1356.05	1357.65	1359.25	32.15
51	1360.85	1362.45	1364.05	1365.64	1367.24	1368.84	1369.74	1370.53	1371.31	1372.10	1372.89	1373.67	32.52
52	1374.46	1375.25											32.79

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	405	808	1211	1615	2018	2421	2825	3228	3631	4035	4438	4842	8.53
1	5245	5648	6052	6455	6858	7262	7665	8069	8472	8875	9279	9683	8.94
2	10247	10812	11377	11942	12506	13071	13636	14201	14765	15330	15895	16460	9.35
3	17024	17589	18154	18719	19283	19848	20413	20978	21542	22107	22672	23237	9.86
4	23838	24439	25040	25641	26242	26843	27444	28045	28646	29247	29848	30449	10.37
5	31050	31651	32253	32854	33455	34056	34657	35258	35859	36460	37061	37662	10.89
6	38290	38917	39544	40172	40799	41426	42054	42681	43308	43936	44563	45190	11.42
7	45818	46445	47072	47700	48327	48955	49582	50209	50837	51464	52091	52719	11.94
8	53365	54011	54656	55302	55948	56594	57240	57886	58532	59178	59824	60470	12.47
9	61116	61762	62407	63054	63699	64345	64991	65637	66283	66929	67575	68221	12.99
10	68879	69538	70196	70854	71512	72171	72829	73487	74146	74804	75462	76121	13.52
11	76779	77437	78096	78754	79412	80071	80729	81387	82046	82704	83362	84020	14.04
12	84686	85352	86017	86683	87349	88014	88680	89346	90011	90677	91343	92008	14.56
13	92674	93340	94005	94671	95336	96002	96668	97333	97999	98665	99330	99996	15.08
14	100665	101334	102002	102671	103340	104009	104678	105347	106016	106685	107353	108022	15.61
15	108691	109360	110029	110698	111367	112036	112705	113373	114042	114711	115380	116049	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	116719	117388	118058	118728	119397	120067	120737	121406	122076	122746	123416	124085	16.64
17	124755	125425	126094	126764	127434	128104	128773	129443	130113	130782	131452	132122	17.15
18	132792	133462	134132	134802	135472	136142	136812	137482	138152	138822	139492	140162	17.67
19	140832	141502	142172	142842	143512	144182	144852	145522	146192	146862	147532	148202	18.18
20	148872	149542	150212	150883	151553	152223	152893	153563	154233	154903	155574	156244	18.69
21	156914	157584	158254	158924	159594	160264	160935	161605	162275	162945	163615	164285	19.20
22	164954	165622	166290	166959	167627	168295	168963	169632	170300	170968	171636	172305	19.71
23	172973	173641	174310	174978	175646	176314	176983	177651	178319	178988	179656	180324	20.21
24	180923	181523	182122	182721	183321	183920	184519	185119	185718	186317	186917	187516	20.71
25	188115	188715	189314	189913	190513	191112	191711	192311	192910	193509	194109	194708	21.17
26	195307	195906	196504	197103	197702	198301	198900	199499	200098	200697	201295	201894	21.63
27	202493	203092	203691	204290	204889	205488	206086	206685	207284	207883	208482	209081	22.09
28	209680	210279	210877	211476	212075	212674	213273	213872	214471	215070	215668	216267	22.55
29	216866	217465	218064	218663	219262	219860	220459	221058	221657	222256	222855	223454	23.02
30	224053	224651	225250	225849	226448	227047	227646	228245	228843	229442	230041	230640	23.49
31	231239	231838	232436	233035	233634	234233	234832	235431	236030	236629	237227	237826	23.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000
SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	238425	239024	239623	240222	240821	241419	242018	242617	243216	243815	244414	245013	24.43
33	245612	246210	246809	247408	248007	248606	249205	249804	250402	251001	251600	252199	24.90
34	252798	253397	253996	254594	255193	255792	256391	256990	257589	258188	258786	259385	25.38
35	259984	260583	261182	261781	262380	262978	263577	264176	264775	265374	265973	266572	25.86
36	267171	267769	268368	268967	269566	270165	270764	271363	271961	272560	273159	273758	26.33
37	274357	274956	275555	276153	276752	277351	277950	278549	279148	279747	280345	280944	26.81
38	281543	282142	282741	283340	283939	284537	285136	285735	286334	286933	287532	288131	27.29
39	288730	289328	289927	290526	291125	291724	292323	292922	293520	294119	294718	295317	27.77
40	295916	296515	297114	297712	298311	298910	299509	300108	300707	301306	301904	302503	28.26
41	303102	303701	304300	304899	305498	306096	306556	307016	307476	307936	308396	308856	28.74
42	309316	309776	310236	310696	311156	311616	312076	312536	312996	313456	313916	314376	29.16
43	314836	315296	315756	316216	316676	317136	317555	317973	318392	318810	319229	319647	29.53
44	320066	320484	320903	321321	321740	322158	322577	322995	323414	323832	324251	324669	29.89
45	325088	325507	325925	326344	326762	327181	327599	328018	328436	328855	329273	329692	30.24
46	330110	330529	330947	331366	331785	332203	332622	333040	333459	333877	334296	334714	30.60
47	335133	335551	335970	336388	336807	337225	337644	338062	338481	338900	339318	339737	30.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000
SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	340155	340574	340992	341411	341829	342248	342666	343085	343503	343922	344340	344759	31.32
49	345178	345596	346015	346433	346852	347270	347689	348107	348526	348944	349363	349781	31.69
50	350200	350618	351037	351456	351874	352293	352711	353130	353548	353967	354385	354804	32.06
51	355222	355641	356059	356478	356896	357314	357522	357729	357936	358144	358351	358558	32.44
52	358765	358973	359180	359387	359595	359802							32.71

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000
SHEET 4 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 22

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.55	3.09	4.63	6.17	7.71	9.25	10.79	12.33	13.87	15.41	16.95	18.49	8.53
1	20.03	21.57	23.11	24.65	26.19	27.73	29.27	30.82	32.36	33.90	35.44	36.98	8.94
2	39.14	41.29	43.45	45.61	47.76	49.92	52.08	54.23	56.39	58.55	60.71	62.86	9.35
3	65.02	67.18	69.33	71.49	73.65	75.80	77.96	80.12	82.27	84.43	86.59	88.75	9.86
4	91.04	93.34	95.63	97.93	100.22	102.52	104.81	107.11	109.41	111.70	114.00	116.29	10.37
5	118.59	120.88	123.18	125.47	127.77	130.07	132.36	134.66	136.95	139.25	141.54	143.84	10.89
6	146.24	148.63	151.03	153.42	155.82	158.22	160.61	163.01	165.40	167.80	170.20	172.59	11.42
7	174.99	177.38	179.78	182.18	184.57	186.97	189.36	191.76	194.15	196.55	198.95	201.34	11.94
8	203.81	206.28	208.74	211.21	213.68	216.14	218.61	221.08	223.55	226.01	228.48	230.95	12.47
9	233.41	235.88	238.35	240.81	243.28	245.75	248.21	250.68	253.15	255.62	258.08	260.55	12.99
10	263.06	265.58	268.09	270.61	273.12	275.63	278.15	280.66	283.18	285.69	288.21	290.72	13.52
11	293.23	295.75	298.26	300.78	303.29	305.81	308.32	310.83	313.35	315.86	318.38	320.89	14.04
12	323.43	325.98	328.52	331.06	333.60	336.14	338.69	341.23	343.77	346.31	348.86	351.40	14.56
13	353.94	356.48	359.02	361.57	364.11	366.65	369.19	371.74	374.28	376.82	379.36	381.90	15.08
14	384.46	387.01	389.57	392.12	394.68	397.23	399.79	402.34	404.90	407.45	410.00	412.56	15.61
15	415.11	417.67	420.22	422.78	425.33	427.89	430.44	433.00	435.55	438.10	440.66	443.21	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	342346	342765	343183	343602	344021	344439	344858	345276	345695	346113	346532	346950	31.48
49	347369	347787	348206	348624	349043	349461	349880	350298	350717	351136	351554	351973	31.85
50	352391	352810	353228	353647	354065	354484	354902	355321	355739	356158	356576	356995	32.23
51	357414	357832	358251	358669	359088	359506	359767	359967	360167				32.60

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	445.77	448.33	450.89	453.44	456.00	458.56	461.12	463.68	466.23	468.79	471.35	473.91	16.64
17	476.46	479.02	481.58	484.14	486.70	489.25	491.81	494.37	496.93	499.48	502.04	504.60	17.15
18	507.16	509.72	512.28	514.84	517.39	519.95	522.51	525.07	527.63	530.19	532.75	535.31	17.67
19	537.87	540.42	542.98	545.54	548.10	550.66	553.22	555.78	558.34	560.90	563.45	566.01	18.18
20	568.57	571.13	573.69	576.25	578.81	581.37	583.93	586.49	589.05	591.61	594.17	596.73	18.69
21	599.29	601.84	604.40	606.96	609.52	612.08	614.64	617.20	619.76	622.32	624.88	627.44	19.20
22	629.99	632.54	635.09	637.65	640.20	642.75	645.30	647.86	650.41	652.96	655.51	658.07	19.71
23	660.62	663.17	665.72	668.28	670.83	673.38	675.93	678.48	681.04	683.59	686.14	688.69	20.21
24	690.98	693.27	695.56	697.85	700.14	702.43	704.72	707.00	709.29	711.58	713.87	716.16	20.71
25	718.45	720.74	723.03	725.32	727.61	729.89	732.18	734.47	736.76	739.05	741.34	743.63	21.17
26	745.92	748.20	750.49	752.78	755.06	757.35	759.64	761.93	764.21	766.50	768.79	771.07	21.63
27	773.36	775.65	777.94	780.22	782.51	784.80	787.09	789.37	791.66	793.95	796.23	798.52	22.09
28	800.81	803.10	805.38	807.67	809.96	812.24	814.53	816.82	819.11	821.39	823.68	825.97	22.55
29	828.25	830.54	832.83	835.12	837.40	839.69	841.98	844.26	846.55	848.84	851.13	853.41	23.02
30	855.70	857.99	860.28	862.56	864.85	867.14	869.42	871.71	874.00	876.29	878.57	880.86	23.49
31	883.15	885.43	887.72	890.01	892.30	894.58	896.87	899.16	901.44	903.73	906.02	908.31	23.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	241561	242159	242758	243357	243956	244555	245154	245753	246351	246950	247549	248148	24.63
33	248747	249346	249945	250544	251142	251741	252340	252939	253538	254137	254736	255334	25.11
34	255933	256532	257131	257730	258329	258928	259526	260125	260724	261323	261922	262521	25.59
35	263120	263718	264317	264916	265515	266114	266713	267312	267910	268509	269108	269707	26.06
36	270306	270905	271504	272103	272701	273300	273899	274498	275097	275696	276295	276893	26.54
37	277492	278091	278690	279289	279888	280487	281085	281684	282283	282882	283481	284080	27.02
38	284679	285277	285876	286475	287074	287673	288272	288871	289469	290068	290667	291266	27.50
39	291865	292464	293063	293662	294260	294859	295458	296057	296656	297255	297854	298452	27.98
40	299051	299650	300249	300848	301447	302046	302644	303243	303842	304441	305040	305639	28.47
41	306238	306836	307435	308034	308633	309232	309701	310119	310538	310957	311375	311794	28.95
42	312212	312631	313049	313468	313886	314305	314723	315142	315560	315979	316397	316816	29.35
43	317235	317653	318072	318490	318909	319327	319746	320164	320583	321001	321420	321838	29.70
44	322257	322675	323094	323513	323931	324350	324768	325187	325605	326024	326442	326861	30.05
45	327279	327698	328116	328535	328953	329372	329791	330209	330628	331046	331465	331883	30.40
46	332302	332720	333139	333557	333976	334394	334813	335231	335650	336069	336487	336906	30.76
47	337324	337743	338161	338580	338998	339417	339835	340254	340672	341091	341509	341928	31.12

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	910.59	912.88	915.17	917.45	919.74	922.03	924.32	926.60	928.89	931.18	933.46	935.75	24.43
33	938.04	940.33	942.61	944.90	947.19	949.47	951.76	954.05	956.34	958.62	960.91	963.20	24.90
34	965.49	967.77	970.06	972.35	974.63	976.92	979.21	981.50	983.78	986.07	988.36	990.64	25.38
35	992.93	995.22	997.51	999.79	1002.08	1004.37	1006.65	1008.94	1011.23	1013.52	1015.80	1018.09	25.86
36	1020.38	1022.66	1024.95	1027.24	1029.53	1031.81	1034.10	1036.39	1038.67	1040.96	1043.25	1045.54	26.33
37	1047.82	1050.11	1052.40	1054.68	1056.97	1059.26	1061.55	1063.83	1066.12	1068.41	1070.69	1072.98	26.81
38	1075.27	1077.56	1079.84	1082.13	1084.42	1086.70	1088.99	1091.28	1093.57	1095.85	1098.14	1100.43	27.29
39	1102.72	1105.00	1107.29	1109.58	1111.86	1114.15	1116.44	1118.73	1121.01	1123.30	1125.59	1127.87	27.77
40	1130.16	1132.45	1134.74	1137.02	1139.31	1141.60	1143.88	1146.17	1148.46	1150.75	1153.03	1155.32	28.26
41	1157.61	1159.89	1162.18	1164.47	1166.76	1169.04	1170.80	1172.56	1174.31	1176.07	1177.83	1179.58	28.74
42	1181.34	1183.10	1184.85	1186.61	1188.37	1190.12	1191.88	1193.64	1195.39	1197.15	1198.91	1200.66	29.16
43	1202.42	1204.18	1205.94	1207.69	1209.45	1211.21	1212.80	1214.40	1216.00	1217.60	1219.20	1220.80	29.53
44	1222.39	1223.99	1225.59	1227.19	1228.79	1230.39	1231.99	1233.58	1235.18	1236.78	1238.38	1239.98	29.89
45	1241.58	1243.17	1244.77	1246.37	1247.97	1249.57	1251.17	1252.76	1254.36	1255.96	1257.56	1259.16	30.24
46	1260.76	1262.36	1263.95	1265.55	1267.15	1268.75	1270.35	1271.95	1273.54	1275.14	1276.74	1278.34	30.60
47	1279.94	1281.54	1283.14	1284.73	1286.33	1287.93	1289.53	1291.13	1292.73	1294.32	1295.92	1297.52	30.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	120221	120891	121561	122231	122900	123570	124240	124910	125580	126250	126920	127590	16.86
17	128260	128929	129599	130269	130939	131609	132279	132949	133619	134289	134958	135628	17.37
18	136298	136968	137638	138309	138979	139649	140319	140989	141659	142329	142999	143669	17.89
19	144339	145009	145679	146350	147020	147690	148360	149030	149700	150370	151040	151710	18.40
20	152380	153050	153721	154391	155061	155731	156401	157071	157742	158412	159082	159752	18.91
21	160422	161092	161762	162433	163103	163773	164443	165113	165783	166454	167124	167794	19.42
22	168451	169104	169756	170408	171061	171713	172365	173018	173670	174323	174975	175627	19.92
23	176280	176932	177584	178237	178889	179541	180194	180846	181498	182151	182803	183455	20.42
24	184069	184668	185267	185866	186465	187064	187663	188261	188860	189459	190058	190657	20.91
25	191256	191855	192453	193052	193651	194250	194849	195448	196047	196646	197244	197843	21.37
26	198442	199041	199640	200239	200838	201436	202035	202634	203233	203832	204431	205030	21.83
27	205629	206227	206826	207425	208024	208623	209222	209821	210419	211018	211617	212216	22.29
28	212815	213414	214013	214612	215210	215809	216408	217007	217606	218205	218804	219403	22.75
29	220001	220600	221199	221798	222397	222996	223595	224193	224792	225391	225990	226589	23.22
30	227188	227787	228386	228984	229583	230182	230781	231380	231979	232578	233176	233775	23.69
31	234374	234973	235572	236171	236770	237369	237967	238566	239165	239764	240363	240962	24.16

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

#2A WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1299.12	1300.72	1302.32	1303.92	1305.51	1307.11	1308.71	1310.31	1311.91	1313.51	1315.10	1316.70	31.32
49	1318.30	1319.90	1321.50	1323.10	1324.70	1326.29	1327.89	1329.49	1331.09	1332.69	1334.29	1335.88	31.69
50	1337.48	1339.08	1340.68	1342.28	1343.88	1345.48	1347.07	1348.67	1350.27	1351.87	1353.47	1355.07	32.06
51	1356.66	1358.26	1359.86	1361.46	1363.06	1364.65	1365.45	1366.24	1367.03	1367.82	1368.61	1369.40	32.44
52	1370.20	1370.99	1371.78	1372.57	1373.36	1374.16							32.71

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	381	909	1438	1966	2495	3023	3552	4080	4609	5137	5666	6194	8.53
1	6723	7251	7780	8308	8837	9365	9894	10422	10951	11479	12008	12536	9.04
2	13098	13672	14246	14821	15395	15969	16544	17118	17692	18267	18841	19415	9.55
3	19990	20564	21138	21712	22287	22861	23435	24010	24584	25158	25733	26307	10.07
4	26906	27513	28121	28729	29337	29945	30553	31161	31769	32377	32985	33593	10.59
5	34201	34809	35417	36025	36633	37240	37848	38456	39064	39672	40280	40888	11.11
6	41514	42146	42778	43411	44043	44675	45307	45940	46572	47204	47837	48469	11.64
7	49101	49733	50366	50998	51630	52263	52895	53527	54159	54792	55424	56056	12.16
8	56701	57350	58000	58649	59298	59948	60597	61246	61896	62545	63195	63844	12.69
9	64493	65143	65792	66441	67091	67740	68389	69039	69688	70337	70987	71636	13.21
10	72294	72954	73615	74275	74936	75596	76257	76917	77578	78238	78899	79559	13.74
11	80220	80881	81541	82202	82862	83523	84183	84844	85504	86165	86825	87486	14.26
12	88151	88818	89485	90152	90818	91485	92152	92819	93486	94153	94820	95486	14.79
13	96153	96820	97487	98154	98821	99488	100155	100821	101488	102155	102822	103489	15.31
14	104158	104827	105496	106166	106835	107504	108173	108843	109512	110181	110850	111520	15.83
15	112189	112858	113528	114197	114866	115535	116205	116874	117543	118213	118882	119551	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000 SHEET 1 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 23

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.45	3.47	5.49	7.51	9.53	11.55	13.56	15.58	17.60	19.62	21.64	23.66	8.53
1	25.68	27.69	29.71	31.73	33.75	35.77	37.79	39.80	41.82	43.84	45.86	47.88	9.04
2	50.02	52.22	54.41	56.60	58.80	60.99	63.18	65.38	67.57	69.76	71.96	74.15	9.55
3	76.34	78.54	80.73	82.92	85.12	87.31	89.50	91.70	93.89	96.08	98.28	100.47	10.07
4	102.76	105.08	107.40	109.72	112.04	114.37	116.69	119.01	121.33	123.65	125.98	128.30	10.59
5	130.62	132.94	135.26	137.59	139.91	142.23	144.55	146.87	149.19	151.52	153.84	156.16	11.11
6	158.55	160.96	163.38	165.79	168.21	170.62	173.04	175.45	177.87	180.28	182.70	185.11	11.64
7	187.53	189.94	192.36	194.77	197.19	199.60	202.02	204.43	206.85	209.26	211.68	214.09	12.16
8	216.55	219.03	221.51	223.99	226.47	228.95	231.43	233.91	236.39	238.87	241.35	243.83	12.69
9	246.31	248.79	251.27	253.75	256.23	258.71	261.19	263.67	266.15	268.63	271.11	273.59	13.21
10	276.10	278.63	281.15	283.67	286.19	288.72	291.24	293.76	296.28	298.81	301.33	303.85	13.74
11	306.38	308.90	311.42	313.94	316.47	318.99	321.51	324.03	326.56	329.08	331.60	334.13	14.26
12	336.67	339.21	341.76	344.31	346.85	349.40	351.95	354.49	357.04	359.59	362.14	364.68	14.79
13	367.23	369.78	372.32	374.87	377.42	379.96	382.51	385.06	387.60	390.15	392.70	395.24	15.31
14	397.80	400.35	402.91	405.47	408.02	410.58	413.14	415.69	418.25	420.80	423.36	425.92	15.83
15	428.47	431.03	433.58	436.14	438.70	441.25	443.81	446.37	448.92	451.48	454.03	456.59	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	459.15	461.71	464.26	466.82	469.38	471.94	474.50	477.06	479.61	482.17	484.73	487.29	16.86
17	489.85	492.41	494.97	497.52	500.08	502.64	505.20	507.76	510.32	512.87	515.43	517.99	17.37
18	520.55	523.11	525.67	528.23	530.79	533.35	535.91	538.46	541.02	543.58	546.14	548.70	17.89
19	551.26	553.82	556.38	558.94	561.50	564.06	566.62	569.17	571.73	574.29	576.85	579.41	18.40
20	581.97	584.53	587.09	589.65	592.21	594.77	597.33	599.89	602.45	605.01	607.57	610.12	18.91
21	612.68	615.24	617.80	620.36	622.92	625.48	628.04	630.60	633.16	635.72	638.28	640.84	19.42
22	643.35	645.84	648.33	650.82	653.31	655.81	658.30	660.79	663.28	665.77	668.26	670.75	19.92
23	673.25	675.74	678.23	680.72	683.21	685.70	688.20	690.69	693.18	695.67	698.16	700.65	20.42
24	703.00	705.28	707.57	709.86	712.15	714.43	716.72	719.01	721.29	723.58	725.87	728.16	20.91
25	730.44	732.73	735.02	737.31	739.59	741.88	744.17	746.45	748.74	751.03	753.32	755.60	21.37
26	757.89	760.18	762.46	764.75	767.04	769.33	771.61	773.90	776.19	778.47	780.76	783.05	21.83
27	785.34	787.62	789.91	792.20	794.49	796.77	799.06	801.35	803.63	805.92	808.21	810.50	22.29
28	812.78	815.07	817.36	819.64	821.93	824.22	826.51	828.79	831.08	833.37	835.65	837.94	22.75
29	840.23	842.52	844.80	847.09	849.38	851.66	853.95	856.24	858.53	860.81	863.10	865.39	23.22
30	867.68	869.96	872.25	874.54	876.82	879.11	881.40	883.69	885.97	888.26	890.55	892.83	23.69
31	895.12	897.41	899.70	901.98	904.27	906.56	908.84	911.13	913.42	915.71	917.99	920.28	24.16

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	922.57	924.85	927.14	929.43	931.72	934.00	936.29	938.58	940.86	943.15	945.44	947.73	24.63
33	950.01	952.30	954.59	956.88	959.16	961.45	963.74	966.02	968.31	970.60	972.89	975.17	25.11
34	977.46	979.75	982.03	984.32	986.61	988.90	991.18	993.47	995.76	998.04	1000.33	1002.62	25.59
35	1004.91	1007.19	1009.48	1011.77	1014.05	1016.34	1018.63	1020.92	1023.20	1025.49	1027.78	1030.06	26.06
36	1032.35	1034.64	1036.93	1039.21	1041.50	1043.79	1046.08	1048.36	1050.65	1052.94	1055.22	1057.51	26.54
37	1059.80	1062.09	1064.37	1066.66	1068.95	1071.23	1073.52	1075.81	1078.10	1080.38	1082.67	1084.96	27.02
38	1087.24	1089.53	1091.82	1094.11	1096.39	1098.68	1100.97	1103.25	1105.54	1107.83	1110.12	1112.40	27.50
39	1114.69	1116.98	1119.26	1121.55	1123.84	1126.13	1128.41	1130.70	1132.99	1135.27	1137.56	1139.85	27.98
40	1142.14	1144.42	1146.71	1149.00	1151.28	1153.57	1155.86	1158.15	1160.43	1162.72	1165.01	1167.29	28.47
41	1169.58	1171.87	1174.16	1176.44	1178.73	1181.02	1182.81	1184.41	1186.01	1187.60	1189.20	1190.80	28.95
42	1192.40	1194.00	1195.60	1197.20	1198.79	1200.39	1201.99	1203.59	1205.19	1206.79	1208.38	1209.98	29.35
43	1211.58	1213.18	1214.78	1216.38	1217.98	1219.57	1221.17	1222.77	1224.37	1225.97	1227.57	1229.16	29.70
44	1230.76	1232.36	1233.96	1235.56	1237.16	1238.76	1240.35	1241.95	1243.55	1245.15	1246.75	1248.35	30.05
45	1249.94	1251.54	1253.14	1254.74	1256.34	1257.94	1259.54	1261.13	1262.73	1264.33	1265.93	1267.53	30.40
46	1269.13	1270.72	1272.32	1273.92	1275.52	1277.12	1278.72	1280.32	1281.91	1283.51	1285.11	1286.71	30.76
47	1288.31	1289.91	1291.50	1293.10	1294.70	1296.30	1297.90	1299.50	1301.10	1302.69	1304.29	1305.89	31.12

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1307.49	1309.09	1310.69	1312.28	1313.88	1315.48	1317.08	1318.68	1320.28	1321.88	1323.47	1325.07	31.48
49	1326.67	1328.27	1329.87	1331.47	1333.06	1334.66	1336.26	1337.86	1339.46	1341.06	1342.65	1344.25	31.85
50	1345.85	1347.45	1349.05	1350.65	1352.25	1353.84	1355.44	1357.04	1358.64	1360.24	1361.84	1363.43	32.23
51	1365.03	1366.63	1368.23	1369.83	1371.43	1373.03	1374.02	1374.79	1375.55				32.60

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	401	867	1332	1798	2263	2729	3194	3660	4125	4591	5056	5522	8.53
1	5987	6453	6918	7384	7849	8315	8780	9246	9711	10177	10642	11108	8.98
2	11663	12233	12803	13372	13942	14511	15081	15651	16220	16790	17360	17929	9.44
3	18499	19069	19638	20208	20778	21347	21917	22487	23056	23626	24195	24765	9.96
4	25365	25969	26574	27179	27783	28388	28992	29597	30201	30806	31411	32015	10.48
5	32620	33224	33829	34434	35038	35643	36247	36852	37456	38061	38666	39270	11.00
6	39897	40526	41156	41786	42416	43046	43676	44306	44936	45566	46195	46825	11.52
7	47455	48085	48715	49345	49975	50605	51235	51864	52494	53124	53754	54384	12.05
8	55029	55677	56324	56972	57620	58268	58915	59563	60211	60858	61506	62154	12.58
9	62801	63449	64097	64745	65392	66040	66688	67335	67983	68631	69278	69926	13.10
10	70584	71243	71903	72562	73222	73881	74541	75200	75860	76519	77178	77838	13.63
11	78497	79157	79816	80476	81135	81795	82454	83114	83773	84433	85092	85752	14.15
12	86417	87083	87749	88416	89082	89748	90415	91081	91747	92414	93080	93746	14.67
13	94412	95079	95745	96411	97078	97744	98410	99076	99743	100409	101075	101742	15.20
14	102410	103079	103749	104418	105087	105756	106425	107094	107763	108432	109101	109770	15.72
15	110440	111109	111778	112447	113116	113785	114454	115123	115792	116461	117131	117800	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	118469	119139	119809	120479	121149	121818	122488	123158	123828	124498	125167	125837	16.75
17	126507	127177	127847	128516	129186	129856	130526	131196	131865	132535	133205	133875	17.26
18	134545	135215	135885	136555	137225	137895	138565	139235	139905	140575	141245	141915	17.78
19	142585	143255	143925	144596	145266	145936	146606	147276	147946	148616	149286	149956	18.29
20	150626	151296	151966	152637	153307	153977	154647	155317	155987	156657	157328	157998	18.80
21	158668	159338	160008	160678	161348	162019	162689	163359	164029	164699	165369	166039	19.31
22	166701	167362	168022	168683	169344	170004	170665	171325	171986	172646	173307	173967	19.81
23	174628	175289	175949	176610	177270	177931	178591	179252	179912	180573	181234	181894	20.31
24	182502	183100	183699	184298	184897	185496	186095	186694	187292	187891	188490	189089	20.81
25	189688	190287	190886	191485	192083	192682	193281	193880	194479	195078	195677	196275	21.27
26	196874	197473	198072	198671	199270	199869	200468	201066	201665	202264	202863	203462	21.73
27	204061	204660	205259	205857	206456	207055	207654	208253	208852	209451	210050	210648	22.19
28	211247	211846	212445	213044	213643	214242	214840	215439	216038	216637	217236	217835	22.65
29	218434	219033	219631	220230	220829	221428	222027	222626	223225	223824	224422	225021	23.12
30	225620	226219	226818	227417	228016	228614	229213	229812	230411	231010	231609	232208	23.59
31	232806	233405	234004	234603	235202	235801	236400	236998	237597	238196	238795	239394	24.06

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	239993	240592	241190	241789	242388	242987	243586	244185	244784	245383	245981	246580	24.53
33	247179	247778	248377	248976	249575	250173	250772	251371	251970	252569	253168	253767	25.01
34	254365	254964	255563	256162	256761	257360	257959	258557	259156	259755	260354	260953	25.48
35	261552	262151	262749	263348	263947	264546	265145	265744	266343	266942	267540	268139	25.96
36	268738	269337	269936	270535	271134	271732	272331	272930	273529	274128	274727	275326	26.44
37	275924	276523	277122	277721	278320	278919	279518	280116	280715	281314	281913	282512	26.92
38	283111	283710	284309	284907	285506	286105	286704	287303	287902	288501	289099	289698	27.40
39	290297	290896	291495	292094	292693	293291	293890	294489	295088	295687	296286	296885	27.88
40	297484	298082	298681	299280	299879	300478	301077	301676	302274	302873	303472	304071	28.36
41	304670	305269	305868	306466	307065	307664	308126	308565	309004	309443	309883	310322	28.84
42	310761	311200	311640	312079	312518	312957	313397	313836	314275	314715	315154	315593	29.26
43	316032	316472	316911	317350	317789	318229	318650	319069	319487	319906	320324	320743	29.61
44	321161	321580	321998	322417	322835	323254	323672	324091	324509	324928	325346	325765	29.97
45	326184	326602	327021	327439	327858	328276	328695	329113	329532	329950	330369	330787	30.32
46	331206	331624	332043	332462	332880	333299	333717	334136	334554	334973	335391	335810	30.68
47	336228	336647	337065	337484	337902	338321	338740	339158	339576	339995	340414	340832	31.04

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	341251	341669	342088	342506	342925	343343	343762	344180	344599	345017	345436	345854	31.40
49	346273	346692	347110	347529	347947	348366	348784	349203	349621	350040	350458	350877	31.77
50	351295	351714	352132	352551	352970	353388	353807	354225	354644	355062	355481	355899	32.15
51	356318	356736	357155	357573	357992	358410	358646	358852	359058	359264	359470	359676	32.52
52	359882	360088											32.79

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 24

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.53	3.31	5.09	6.87	8.64	10.42	12.20	13.98	15.75	17.53	19.31	21.09	8.53
1	22.87	24.64	26.42	28.20	29.98	31.76	33.53	35.31	37.09	38.87	40.65	42.42	8.98
2	44.54	46.72	48.90	51.07	53.25	55.42	57.60	59.77	61.95	64.12	66.30	68.48	9.44
3	70.65	72.83	75.00	77.18	79.35	81.53	83.70	85.88	88.06	90.23	92.41	94.58	9.96
4	96.87	99.18	101.49	103.80	106.11	108.42	110.73	113.04	115.35	117.65	119.96	122.27	10.48
5	124.58	126.89	129.20	131.51	133.82	136.13	138.44	140.74	143.05	145.36	147.67	149.98	11.00
6	152.37	154.78	157.18	159.59	162.00	164.40	166.81	169.21	171.62	174.02	176.43	178.84	11.52
7	181.24	183.65	186.05	188.46	190.86	193.27	195.67	198.08	200.49	202.89	205.30	207.70	12.05
8	210.17	212.64	215.11	217.59	220.06	222.54	225.01	227.48	229.96	232.43	234.90	237.38	12.58
9	239.85	242.32	244.80	247.27	249.75	252.22	254.69	257.17	259.64	262.11	264.59	267.06	13.10
10	269.57	272.09	274.61	277.13	279.65	282.17	284.69	287.20	289.72	292.24	294.76	297.28	13.63
11	299.80	302.32	304.83	307.35	309.87	312.39	314.91	317.43	319.95	322.47	324.98	327.50	14.15
12	330.04	332.59	335.13	337.68	340.22	342.77	345.31	347.86	350.40	352.95	355.49	358.03	14.67
13	360.58	363.12	365.67	368.21	370.76	373.30	375.85	378.39	380.94	383.48	386.03	388.57	15.20
14	391.13	393.68	396.24	398.79	401.35	403.90	406.46	409.01	411.57	414.12	416.68	419.23	15.72
15	421.79	424.35	426.90	429.46	432.01	434.57	437.12	439.68	442.23	444.79	447.34	449.90	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440.FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	452.46	455.02	457.57	460.13	462.69	465.25	467.81	470.36	472.92	475.48	478.04	480.60	16.75
17	483.16	485.71	488.27	490.83	493.39	495.95	498.50	501.06	503.62	506.18	508.74	511.29	17.26
18	513.85	516.41	518.97	521.53	524.09	526.65	529.21	531.77	534.33	536.89	539.44	542.00	17.78
19	544.56	547.12	549.68	552.24	554.80	557.36	559.92	562.48	565.03	567.59	570.15	572.71	18.29
20	575.27	577.83	580.39	582.95	585.51	588.07	590.63	593.19	595.75	598.31	600.87	603.42	18.80
21	605.98	608.54	611.10	613.66	616.22	618.78	621.34	623.90	626.46	629.02	631.58	634.14	19.31
22	636.67	639.19	641.71	644.23	646.76	649.28	651.80	654.32	656.85	659.37	661.89	664.42	19.81
23	666.94	669.46	671.98	674.51	677.03	679.55	682.08	684.60	687.12	689.64	692.17	694.69	20.31
24	697.01	699.30	701.58	703.87	706.16	708.45	710.73	713.02	715.31	717.59	719.88	722.17	20.81
25	724.46	726.74	729.03	731.32	733.60	735.89	738.18	740.47	742.75	745.04	747.33	749.61	21.27
26	751.90	754.19	756.48	758.76	761.05	763.34	765.63	767.91	770.20	772.49	774.77	777.06	21.73
27	779.35	781.64	783.92	786.21	788.50	790.78	793.07	795.36	797.65	799.93	802.22	804.51	22.19
28	806.80	809.08	811.37	813.66	815.94	818.23	820.52	822.81	825.09	827.38	829.67	831.95	22.65
29	834.24	836.53	838.82	841.10	843.39	845.68	847.96	850.25	852.54	854.83	857.11	859.40	23.12
30	861.69	863.97	866.26	868.55	870.84	873.12	875.41	877.70	879.99	882.27	884.56	886.85	23.59
31	889.13	891.42	893.71	896.00	898.28	900.57	902.86	905.14	907.43	909.72	912.01	914.29	24.06

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	916.58	918.87	921.15	923.44	925.73	928.02	930.30	932.59	934.88	937.16	939.45	941.74	24.53
33	944.03	946.31	948.60	950.89	953.17	955.46	957.75	960.04	962.32	964.61	966.90	969.18	25.01
34	971.47	973.76	976.05	978.33	980.62	982.91	985.20	987.48	989.77	992.06	994.34	996.63	25.48
35	998.92	1001.21	1003.49	1005.78	1008.07	1010.35	1012.64	1014.93	1017.22	1019.50	1021.79	1024.08	25.96
36	1026.36	1028.65	1030.94	1033.23	1035.51	1037.80	1040.09	1042.37	1044.66	1046.95	1049.24	1051.52	26.44
37	1053.81	1056.10	1058.38	1060.67	1062.96	1065.25	1067.53	1069.82	1072.11	1074.40	1076.68	1078.97	26.92
38	1081.26	1083.54	1085.83	1088.12	1090.41	1092.69	1094.98	1097.27	1099.55	1101.84	1104.13	1106.42	27.40
39	1108.70	1110.99	1113.28	1115.56	1117.85	1120.14	1122.43	1124.71	1127.00	1129.29	1131.57	1133.86	27.88
40	1136.15	1138.44	1140.72	1143.01	1145.30	1147.58	1149.87	1152.16	1154.45	1156.73	1159.02	1161.31	28.36
41	1163.59	1165.88	1168.17	1170.46	1172.74	1175.03	1176.79	1178.47	1180.15	1181.83	1183.50	1185.18	28.84
42	1186.86	1188.54	1190.21	1191.89	1193.57	1195.25	1196.92	1198.60	1200.28	1201.96	1203.63	1205.31	29.26
43	1206.99	1208.67	1210.35	1212.02	1213.70	1215.38	1216.99	1218.59	1220.18	1221.78	1223.38	1224.98	29.61
44	1226.58	1228.18	1229.78	1231.37	1232.97	1234.57	1236.17	1237.77	1239.37	1240.96	1242.56	1244.16	29.97
45	1245.76	1247.36	1248.96	1250.55	1252.15	1253.75	1255.35	1256.95	1258.55	1260.15	1261.74	1263.34	30.32
46	1264.94	1266.54	1268.14	1269.74	1271.33	1272.93	1274.53	1276.13	1277.73	1279.33	1280.93	1282.52	30.68
47	1284.12	1285.72	1287.32	1288.92	1290.52	1292.11	1293.71	1295.31	1296.91	1298.51	1300.11	1301.71	31.04

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1303.30	1304.90	1306.50	1308.10	1309.70	1311.30	1312.89	1314.49	1316.09	1317.69	1319.29	1320.89	31.40
49	1322.49	1324.08	1325.68	1327.28	1328.88	1330.48	1332.08	1333.67	1335.27	1336.87	1338.47	1340.07	31.77
50	1341.67	1343.27	1344.86	1346.46	1348.06	1349.66	1351.26	1352.86	1354.45	1356.05	1357.65	1359.25	32.15
51	1360.85	1362.45	1364.05	1365.64	1367.24	1368.84	1369.74	1370.53	1371.31	1372.10	1372.89	1373.67	32.52
52	1374.46	1375.25											32.79

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.072 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	405	808	1211	1615	2018	2421	2825	3228	3631	4035	4438	4842	8.53
1	5245	5648	6052	6455	6858	7262	7665	8069	8472	8875	9279	9683	8.94
2	10247	10812	11377	11942	12506	13071	13636	14201	14765	15330	15895	16460	9.35
3	17024	17589	18154	18719	19283	19848	20413	20978	21542	22107	22672	23237	9.86
4	23838	24439	25040	25641	26242	26843	27444	28045	28646	29247	29848	30449	10.37
5	31050	31651	32253	32854	33455	34056	34657	35258	35859	36460	37061	37662	10.89
6	38290	38917	39544	40172	40799	41426	42054	42681	43308	43936	44563	45190	11.42
7	45818	46445	47072	47700	48327	48955	49582	50209	50837	51464	52091	52719	11.94
8	53365	54011	54656	55302	55948	56594	57240	57886	58532	59178	59824	60470	12.47
9	61116	61762	62407	63054	63699	64345	64991	65637	66283	66929	67575	68221	12.99
10	68879	69538	70196	70854	71512	72171	72829	73487	74146	74804	75462	76121	13.52
11	76779	77437	78096	78754	79412	80071	80729	81387	82046	82704	83362	84020	14.04
12	84686	85352	86017	86683	87349	88014	88680	89346	90011	90677	91343	92008	14.56
13	92674	93340	94005	94671	95336	96002	96668	97333	97999	98665	99330	99996	15.08
14	100665	101334	102002	102671	103340	104009	104678	105347	106016	106685	107353	108022	15.61
15	108691	109360	110029	110698	111367	112036	112705	113373	114042	114711	115380	116049	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	116719	117388	118058	118728	119397	120067	120737	121406	122076	122746	123416	124085	16.64
17	124755	125425	126094	126764	127434	128104	128773	129443	130113	130782	131452	132122	17.15
18	132792	133462	134132	134802	135472	136142	136812	137482	138152	138822	139492	140162	17.67
19	140832	141502	142172	142842	143512	144182	144852	145522	146192	146862	147532	148202	18.18
20	148872	149542	150212	150883	151553	152223	152893	153563	154233	154903	155574	156244	18.69
21	156914	157584	158254	158924	159594	160264	160935	161605	162275	162945	163615	164285	19.20
22	164954	165622	166290	166959	167627	168295	168963	169632	170300	170968	171636	172305	19.71
23	172973	173641	174310	174978	175646	176314	176983	177651	178319	178988	179656	180324	20.21
24	180923	181523	182122	182721	183321	183920	184519	185119	185718	186317	186917	187516	20.71
25	188115	188715	189314	189913	190513	191112	191711	192311	192910	193509	194109	194708	21.17
26	195307	195906	196504	197103	197702	198301	198900	199499	200098	200697	201295	201894	21.63
27	202493	203092	203691	204290	204889	205488	206086	206685	207284	207883	208482	209081	22.09
28	209680	210279	210877	211476	212075	212674	213273	213872	214471	215070	215668	216267	22.55
29	216866	217465	218064	218663	219262	219860	220459	221058	221657	222256	222855	223454	23.02
30	224053	224651	225250	225849	226448	227047	227646	228245	228843	229442	230041	230640	23.49
31	231239	231838	232436	233035	233634	234233	234832	235431	236030	236629	237227	237826	23.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	238425	239024	239623	240222	240821	241419	242018	242617	243216	243815	244414	245013	24.43
33	245612	246210	246809	247408	248007	248606	249205	249804	250402	251001	251600	252199	24.90
34	252798	253397	253996	254594	255193	255792	256391	256990	257589	258188	258786	259385	25.38
35	259984	260583	261182	261781	262380	262978	263577	264176	264775	265374	265973	266572	25.86
36	267171	267769	268368	268967	269566	270165	270764	271363	271961	272560	273159	273758	26.33
37	274357	274956	275555	276153	276752	277351	277950	278549	279148	279747	280345	280944	26.81
38	281543	282142	282741	283340	283939	284537	285136	285735	286334	286933	287532	288131	27.29
39	288730	289328	289927	290526	291125	291724	292323	292922	293520	294119	294718	295317	27.77
40	295916	296515	297114	297712	298311	298910	299509	300108	300707	301306	301904	302503	28.26
41	303102	303701	304300	304899	305498	306096	306556	307016	307476	307936	308396	308856	28.74
42	309316	309776	310236	310696	311156	311616	312076	312536	312996	313456	313916	314376	29.16
43	314836	315296	315756	316216	316676	317136	317555	317973	318392	318810	319229	319647	29.53
44	320066	320484	320903	321321	321740	322158	322577	322995	323414	323832	324251	324669	29.89
45	325088	325507	325925	326344	326762	327181	327599	328018	328436	328855	329273	329692	30.24
46	330110	330529	330947	331366	331785	332203	332622	333040	333459	333877	334296	334714	30.60
47	335133	335551	335970	336388	336807	337225	337644	338062	338481	338900	339318	339737	30.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	340155	340574	340992	341411	341829	342248	342666	343085	343503	343922	344340	344759	31.32
49	345178	345596	346015	346433	346852	347270	347689	348107	348526	348944	349363	349781	31.69
50	350200	350618	351037	351456	351874	352293	352711	353130	353548	353967	354385	354804	32.06
51	355222	355641	356059	356478	356896	357314	357522	357729	357936	358144	358351	358558	32.44
52	358765	358973	359180	359387	359595	359802							32.71

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 360218.94 GALLONS VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 25

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.55	3.09	4.63	6.17	7.71	9.25	10.79	12.33	13.87	15.41	16.95	18.49	8.53
1	20.03	21.57	23.11	24.65	26.19	27.73	29.27	30.82	32.36	33.90	35.44	36.98	8.94
2	39.14	41.29	43.45	45.61	47.76	49.92	52.08	54.23	56.39	58.55	60.71	62.86	9.35
3	65.02	67.18	69.33	71.49	73.65	75.80	77.96	80.12	82.27	84.43	86.59	88.75	9.86
4	91.04	93.34	95.63	97.93	100.22	102.52	104.81	107.11	109.41	111.70	114.00	116.29	10.37
5	118.59	120.88	123.18	125.47	127.77	130.07	132.36	134.66	136.95	139.25	141.54	143.84	10.89
6	146.24	148.63	151.03	153.42	155.82	158.22	160.61	163.01	165.40	167.80	170.20	172.59	11.42
7	174.99	177.38	179.78	182.18	184.57	186.97	189.36	191.76	194.15	196.55	198.95	201.34	11.94
8	203.81	206.28	208.74	211.21	213.68	216.14	218.61	221.08	223.55	226.01	228.48	230.95	12.47
9	233.41	235.88	238.35	240.81	243.28	245.75	248.21	250.68	253.15	255.62	258.08	260.55	12.99
10	263.06	265.58	268.09	270.61	273.12	275.63	278.15	280.66	283.18	285.69	288.21	290.72	13.52
11	293.23	295.75	298.26	300.78	303.29	305.81	308.32	310.83	313.35	315.86	318.38	320.89	14.04
12	323.43	325.98	328.52	331.06	333.60	336.14	338.69	341.23	343.77	346.31	348.86	351.40	14.56
13	353.94	356.48	359.02	361.57	364.11	366.65	369.19	371.74	374.28	376.82	379.36	381.90	15.08
14	384.46	387.01	389.57	392.12	394.68	397.23	399.79	402.34	404.90	407.45	410.00	412.56	15.61
15	415.11	417.67	420.22	422.78	425.33	427.89	430.44	433.00	435.55	438.10	440.66	443.21	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	445.77	448.33	450.89	453.44	456.00	458.56	461.12	463.68	466.23	468.79	471.35	473.91	16.64
17	476.46	479.02	481.58	484.14	486.70	489.25	491.81	494.37	496.93	499.48	502.04	504.60	17.15
18	507.16	509.72	512.28	514.84	517.39	519.95	522.51	525.07	527.63	530.19	532.75	535.31	17.67
19	537.87	540.42	542.98	545.54	548.10	550.66	553.22	555.78	558.34	560.90	563.45	566.01	18.18
20	568.57	571.13	573.69	576.25	578.81	581.37	583.93	586.49	589.05	591.61	594.17	596.73	18.69
21	599.29	601.84	604.40	606.96	609.52	612.08	614.64	617.20	619.76	622.32	624.88	627.44	19.20
22	629.99	632.54	635.09	637.65	640.20	642.75	645.30	647.86	650.41	652.96	655.51	658.07	19.71
23	660.62	663.17	665.72	668.28	670.83	673.38	675.93	678.48	681.04	683.59	686.14	688.69	20.21
24	690.98	693.27	695.56	697.85	700.14	702.43	704.72	707.00	709.29	711.58	713.87	716.16	20.71
25	718.45	720.74	723.03	725.32	727.61	729.89	732.18	734.47	736.76	739.05	741.34	743.63	21.17
26	745.92	748.20	750.49	752.78	755.06	757.35	759.64	761.93	764.21	766.50	768.79	771.07	21.63
27	773.36	775.65	777.94	780.22	782.51	784.80	787.09	789.37	791.66	793.95	796.23	798.52	22.09
28	800.81	803.10	805.38	807.67	809.96	812.24	814.53	816.82	819.11	821.39	823.68	825.97	22.55
29	828.25	830.54	832.83	835.12	837.40	839.69	841.98	844.26	846.55	848.84	851.13	853.41	23.02
30	855.70	857.99	860.28	862.56	864.85	867.14	869.42	871.71	874.00	876.29	878.57	880.86	23.49
31	883.15	885.43	887.72	890.01	892.30	894.58	896.87	899.16	901.44	903.73	906.02	908.31	23.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	910.59	912.88	915.17	917.45	919.74	922.03	924.32	926.60	928.89	931.18	933.46	935.75	24.43
33	938.04	940.33	942.61	944.90	947.19	949.47	951.76	954.05	956.34	958.62	960.91	963.20	24.90
34	965.49	967.77	970.06	972.35	974.63	976.92	979.21	981.50	983.78	986.07	988.36	990.64	25.38
35	992.93	995.22	997.51	999.79	1002.08	1004.37	1006.65	1008.94	1011.23	1013.52	1015.80	1018.09	25.86
36	1020.38	1022.66	1024.95	1027.24	1029.53	1031.81	1034.10	1036.39	1038.67	1040.96	1043.25	1045.54	26.33
37	1047.82	1050.11	1052.40	1054.68	1056.97	1059.26	1061.55	1063.83	1066.12	1068.41	1070.69	1072.98	26.81
38	1075.27	1077.56	1079.84	1082.13	1084.42	1086.70	1088.99	1091.28	1093.57	1095.85	1098.14	1100.43	27.29
39	1102.72	1105.00	1107.29	1109.58	1111.86	1114.15	1116.44	1118.73	1121.01	1123.30	1125.59	1127.87	27.77
40	1130.16	1132.45	1134.74	1137.02	1139.31	1141.60	1143.88	1146.17	1148.46	1150.75	1153.03	1155.32	28.26
41	1157.61	1159.89	1162.18	1164.47	1166.76	1169.04	1170.80	1172.56	1174.31	1176.07	1177.83	1179.58	28.74
42	1181.34	1183.10	1184.85	1186.61	1188.37	1190.12	1191.88	1193.64	1195.39	1197.15	1198.91	1200.66	29.16
43	1202.42	1204.18	1205.94	1207.69	1209.45	1211.21	1212.80	1214.40	1216.00	1217.60	1219.20	1220.80	29.53
44	1222.39	1223.99	1225.59	1227.19	1228.79	1230.39	1231.99	1233.58	1235.18	1236.78	1238.38	1239.98	29.89
45	1241.58	1243.17	1244.77	1246.37	1247.97	1249.57	1251.17	1252.76	1254.36	1255.96	1257.56	1259.16	30.24
46	1260.76	1262.36	1263.95	1265.55	1267.15	1268.75	1270.35	1271.95	1273.54	1275.14	1276.74	1278.34	30.60
47	1279.94	1281.54	1283.14	1284.73	1286.33	1287.93	1289.53	1291.13	1292.73	1294.32	1295.92	1297.52	30.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

2A WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 67-73 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1299.12	1300.72	1302.32	1303.92	1305.51	1307.11	1308.71	1310.31	1311.91	1313.51	1315.10	1316.70	31.32
49	1318.30	1319.90	1321.50	1323.10	1324.70	1326.29	1327.89	1329.49	1331.09	1332.69	1334.29	1335.88	31.69
50	1337.48	1339.08	1340.68	1342.28	1343.88	1345.48	1347.07	1348.67	1350.27	1351.87	1353.47	1355.07	32.06
51	1356.66	1358.26	1359.86	1361.46	1363.06	1364.65	1365.45	1366.24	1367.03	1367.82	1368.61	1369.40	32.44
52	1370.20	1370.99	1371.78	1372.57	1373.36	1374.16							32.71

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1375.75 S.W.LTON VCG = 32.82 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.084 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	353006	353451	353896	354340	354785	355230	355675	356119	356564	357009	357454	357898	32.37
49	358343	358788	359233	359678	360122	360567	361012	361457	361901	362346	362791	363236	32.74
50	363680	364125	364570	365015	365460	365904	366349	366794	367239	367683	368128	368573	33.11
51	369018	369462	369907	370352	370797	371242	371526	371749	371971				33.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	242075	242745	243415	244086	244756	245426	246096	246766	247437	248107	248777	249447	25.29
33	250117	250788	251458	252128	252798	253468	254139	254809	255479	256149	256819	257489	25.80
34	258160	258830	259500	260170	260840	261511	262181	262851	263521	264191	264862	265532	26.31
35	266202	266872	267542	268213	268883	269553	270223	270893	271563	272234	272904	273574	26.81
36	274244	274914	275584	276255	276925	277595	278265	278935	279606	280276	280946	281616	27.32
37	282286	282957	283627	284297	284967	285637	286308	286978	287648	288318	288988	289658	27.83
38	290329	290999	291669	292339	293009	293679	294350	295020	295690	296360	297030	297701	28.33
39	298371	299041	299711	300381	301052	301722	302392	303062	303732	304403	305073	305743	28.84
40	306413	307083	307753	308424	309094	309764	310434	311104	311775	312445	313115	313785	29.34
41	314455	315125	315796	316466	317136	317806	318314	318759	319204	319648	320093	320538	29.84
42	320983	321428	321872	322317	322762	323207	323651	324096	324541	324986	325430	325875	30.26
43	326320	326765	327209	327654	328099	328544	328989	329433	329878	330323	330768	331212	30.60
44	331657	332102	332547	332992	333436	333881	334326	334771	335215	335660	336105	336550	30.94
45	336994	337439	337884	338329	338774	339218	339663	340108	340553	340997	341442	341887	31.29
46	342332	342776	343221	343666	344111	344555	345000	345445	345890	346335	346779	347224	31.65
47	347669	348114	348558	349003	349448	349893	350337	350782	351227	351672	352117	352561	32.01

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	113474	114141	114809	115477	116144	116812	117480	118147	118815	119483	120150	120818	17.06
17	121486	122153	122821	123489	124156	124824	125492	126159	126827	127495	128163	128830	17.58
18	129499	130169	130838	131508	132177	132847	133517	134186	134856	135525	136195	136864	18.11
19	137534	138204	138873	139543	140212	140882	141552	142221	142891	143560	144230	144899	18.63
20	145569	146239	146909	147580	148250	148920	149590	150260	150930	151600	152270	152941	19.15
21	153611	154281	154951	155621	156291	156961	157631	158301	158972	159642	160312	160982	19.67
22	161652	162322	162992	163663	164333	165003	165673	166343	167014	167684	168354	169024	20.19
23	169695	170365	171035	171705	172375	173045	173716	174386	175056	175726	176396	177067	20.70
24	177737	178407	179077	179747	180418	181088	181758	182428	183098	183769	184439	185109	21.22
25	185779	186449	187119	187790	188460	189130	189800	190470	191141	191811	192481	193151	21.73
26	193821	194492	195162	195832	196502	197172	197843	198513	199183	199853	200523	201193	22.24
27	201864	202534	203204	203874	204544	205215	205885	206555	207225	207895	208566	209236	22.75
28	209906	210576	211246	211917	212587	213257	213927	214597	215267	215938	216608	217278	23.26
29	217948	218618	219289	219959	220629	221299	221969	222640	223310	223980	224650	225320	23.77
30	225991	226661	227331	228001	228671	229341	230012	230682	231352	232022	232692	233363	24.28
31	234033	234703	235373	236043	236714	237384	238054	238724	239394	240065	240735	241405	24.79

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	327	781	1235	1688	2142	2596	3050	3504	3958	4412	4865	5319	8.53
1	5773	6227	6681	7135	7588	8042	8496	8950	9404	9858	10312	10765	9.04
2	11263	11779	12294	12809	13324	13839	14354	14870	15385	15900	16415	16930	9.56
3	17445	17960	18476	18991	19506	20021	20536	21051	21567	22082	22597	23112	10.09
4	23660	24222	24783	25344	25905	26466	27027	27589	28150	28711	29272	29833	10.62
5	30395	30956	31517	32078	32639	33200	33762	34323	34884	35445	36006	36567	11.15
6	37154	37750	38346	38942	39538	40134	40730	41327	41923	42519	43115	43711	11.69
7	44307	44903	45499	46095	46691	47288	47884	48480	49076	49672	50268	50864	12.23
8	51479	52102	52724	53346	53969	54591	55213	55836	56458	57080	57703	58325	12.77
9	58947	59570	60192	60814	61437	62059	62681	63304	63926	64548	65171	65793	13.31
10	66429	67071	67712	68354	68995	69637	70278	70919	71561	72202	72844	73485	13.85
11	74127	74768	75410	76051	76693	77334	77976	78617	79259	79900	80542	81183	14.39
12	81834	82489	83144	83798	84453	85108	85763	86417	87072	87727	88382	89036	14.93
13	89691	90346	91001	91655	92310	92965	93620	94274	94929	95584	96239	96893	15.46
14	97554	98217	98880	99544	100207	100870	101533	102196	102860	103523	104186	104849	16.00
15	105512	106175	106839	107502	108165	108828	109491	110154	110818	111481	112144	112807	16.53

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 1 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 26

201

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.25	2.98	4.71	6.45	8.18	9.92	11.65	13.38	15.12	16.85	18.58	20.32	8.53
1	22.05	23.78	25.52	27.25	28.98	30.72	32.45	34.18	35.92	37.65	39.38	41.12	9.04
2	43.02	44.98	46.95	48.92	50.89	52.85	54.82	56.79	58.76	60.72	62.69	64.66	9.56
3	66.63	68.59	70.56	72.53	74.50	76.46	78.43	80.40	82.37	84.33	86.30	88.27	10.09
4	90.36	92.51	94.65	96.79	98.94	101.08	103.22	105.37	107.51	109.65	111.80	113.94	10.62
5	116.08	118.23	120.37	122.51	124.66	126.80	128.94	131.09	133.23	135.37	137.52	139.66	11.15
6	141.90	144.17	146.45	148.73	151.00	153.28	155.56	157.83	160.11	162.39	164.66	166.94	11.69
7	169.22	171.49	173.77	176.05	178.32	180.60	182.88	185.15	187.43	189.71	191.98	194.26	12.23
8	196.61	198.99	201.36	203.74	206.12	208.49	210.87	213.25	215.62	218.00	220.38	222.75	12.77
9	225.13	227.51	229.88	232.26	234.64	237.02	239.39	241.77	244.15	246.52	248.90	251.28	13.31
10	253.71	256.16	258.61	261.06	263.51	265.96	268.41	270.86	273.31	275.76	278.21	280.66	13.85
11	283.11	285.56	288.00	290.46	292.90	295.35	297.80	300.25	302.70	305.15	307.60	310.05	14.39
12	312.54	315.04	317.54	320.04	322.54	325.04	327.54	330.05	332.55	335.05	337.55	340.05	14.93
13	342.55	345.05	347.55	350.05	352.55	355.05	357.55	360.05	362.55	365.05	367.55	370.05	15.46
14	372.58	375.11	377.64	380.18	382.71	385.24	387.78	390.31	392.84	395.37	397.91	400.44	16.00
15	402.97	405.50	408.04	410.57	413.10	415.64	418.17	420.70	423.23	425.77	428.30	430.83	16.53

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	433.38	435.93	438.48	441.03	443.58	446.13	448.68	451.23	453.78	456.33	458.88	461.43	17.06
17	463.98	466.53	469.08	471.63	474.18	476.73	479.28	481.83	484.38	486.93	489.48	492.03	17.58
18	494.58	497.14	499.70	502.25	504.81	507.37	509.93	512.48	515.04	517.60	520.16	522.71	18.11
19	525.27	527.83	530.38	532.94	535.50	538.06	540.61	543.17	545.73	548.28	550.84	553.40	18.63
20	555.96	558.52	561.08	563.64	566.20	568.75	571.31	573.87	576.43	578.99	581.55	584.11	19.15
21	586.67	589.23	591.79	594.35	596.91	599.47	602.03	604.58	607.14	609.70	612.26	614.82	19.67
22	617.38	619.94	622.50	625.06	627.62	630.18	632.74	635.30	637.86	640.42	642.98	645.54	20.19
23	648.10	650.66	653.22	655.78	658.34	660.89	663.45	666.01	668.57	671.13	673.69	676.25	20.70
24	678.81	681.37	683.93	686.49	689.05	691.61	694.17	696.73	699.29	701.85	704.41	706.97	21.22
25	709.53	712.09	714.65	717.21	719.77	722.32	724.88	727.44	730.00	732.56	735.12	737.68	21.73
26	740.24	742.80	745.36	747.92	750.48	753.04	755.60	758.16	760.72	763.28	765.84	768.40	22.24
27	770.96	773.52	776.08	778.64	781.20	783.76	786.31	788.87	791.43	793.99	796.55	799.11	22.75
28	801.67	804.23	806.79	809.35	811.91	814.47	817.03	819.59	822.15	824.71	827.27	829.83	23.26
29	832.39	834.95	837.51	840.07	842.63	845.19	847.75	850.30	852.86	855.42	857.98	860.54	23.77
30	863.10	865.66	868.22	870.78	873.34	875.90	878.46	881.02	883.58	886.14	888.70	891.26	24.28
31	893.82	896.38	898.94	901.50	904.06	906.62	909.18	911.73	914.29	916.85	919.41	921.97	24.79

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	924.53	927.09	929.65	932.21	934.77	937.33	939.89	942.45	945.01	947.57	950.13	952.69	25.29
33	955.25	957.81	960.37	962.93	965.49	968.05	970.61	973.17	975.72	978.28	980.84	983.40	25.80
34	985.96	988.52	991.08	993.64	996.20	998.76	1001.32	1003.88	1006.44	1009.00	1011.56	1014.12	26.31
35	1016.68	1019.24	1021.80	1024.36	1026.92	1029.48	1032.04	1034.59	1037.15	1039.71	1042.27	1044.83	26.81
36	1047.39	1049.95	1052.51	1055.07	1057.63	1060.19	1062.75	1065.31	1067.87	1070.43	1072.99	1075.55	27.32
37	1078.11	1080.67	1083.23	1085.79	1088.35	1090.91	1093.47	1096.02	1098.58	1101.14	1103.70	1106.26	27.83
38	1108.82	1111.38	1113.94	1116.50	1119.06	1121.62	1124.18	1126.74	1129.30	1131.86	1134.42	1136.98	28.33
39	1139.54	1142.10	1144.66	1147.22	1149.78	1152.33	1154.90	1157.45	1160.01	1162.57	1165.13	1167.69	28.84
40	1170.25	1172.81	1175.37	1177.93	1180.49	1183.05	1185.61	1188.17	1190.73	1193.29	1195.85	1198.41	29.34
41	1200.97	1203.53	1206.09	1208.65	1211.21	1213.76	1215.70	1217.40	1219.10	1220.80	1222.50	1224.20	29.84
42	1225.90	1227.60	1229.29	1230.99	1232.69	1234.39	1236.09	1237.79	1239.49	1241.18	1242.88	1244.58	30.26
43	1246.28	1247.98	1249.68	1251.38	1253.08	1254.77	1256.47	1258.17	1259.87	1261.57	1263.27	1264.97	30.60
44	1266.66	1268.36	1270.06	1271.76	1273.46	1275.16	1276.86	1278.56	1280.25	1281.95	1283.65	1285.35	30.94
45	1287.05	1288.75	1290.45	1292.14	1293.84	1295.54	1297.24	1298.94	1300.64	1302.34	1304.04	1305.73	31.29
46	1307.43	1309.13	1310.83	1312.53	1314.23	1315.93	1317.62	1319.32	1321.02	1322.72	1324.42	1326.12	31.65
47	1327.82	1329.52	1331.21	1332.91	1334.61	1336.31	1338.01	1339.71	1341.41	1343.10	1344.80	1346.50	32.01

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1348.20	1349.90	1351.60	1353.30	1354.99	1356.69	1358.39	1360.09	1361.79	1363.49	1365.19	1366.89	32.37
49	1368.58	1370.28	1371.98	1373.68	1375.38	1377.08	1378.78	1380.47	1382.17	1383.87	1385.57	1387.27	32.74
50	1388.97	1390.67	1392.36	1394.06	1395.76	1397.46	1399.16	1400.86	1402.56	1404.26	1405.95	1407.65	33.11
51	1409.35	1411.05	1412.75	1414.45	1416.15	1417.85	1418.93	1419.78	1420.63				33.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	352097	352542	352986	353431	353876	354321	354766	355210	355655	356100	356545	356989	32.31
49	357434	357879	358324	358769	359213	359658	360103	360548	360992	361437	361882	362327	32.67
50	362771	363216	363661	364106	364550	364995	365440	365885	366330	366774	367219	367664	33.05
51	368109	368553	368998	369443	369888	370236	370458	370680	370903	371125	371348	371570	33.42
52	371792	372015											33.68

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	240705	241376	242046	242716	243386	244056	244726	245397	246067	246737	247407	248077	25.21
33	248748	249418	250088	250758	251428	252098	252769	253439	254109	254779	255449	256120	25.72
34	256790	257460	258130	258800	259471	260141	260811	261481	262151	262822	263492	264162	26.22
35	264832	265502	266172	266843	267513	268183	268853	269523	270194	270864	271534	272204	26.73
36	272874	273545	274215	274885	275555	276225	276896	277566	278236	278906	279576	280246	27.23
37	280917	281587	282257	282927	283597	284267	284938	285608	286278	286948	287618	288289	27.74
38	288959	289629	290299	290969	291640	292310	292980	293650	294320	294991	295661	296331	28.24
39	297001	297671	298341	299012	299682	300352	301022	301692	302362	303033	303703	304373	28.75
40	305043	305713	306384	307054	307724	308394	309064	309735	310405	311075	311745	312415	29.25
41	313085	313756	314426	315096	315766	316349	316820	317291	317762	318232	318703	319174	29.76
42	319644	320115	320586	321056	321527	321998	322469	322939	323410	323881	324351	324822	30.17
43	325293	325763	326234	326705	327175	327635	328080	328524	328969	329414	329859	330303	30.53
44	330748	331193	331638	332082	332527	332972	333417	333862	334306	334751	335196	335641	30.88
45	336085	336530	336975	337420	337864	338309	338754	339199	339643	340088	340533	340978	31.23
46	341423	341867	342312	342757	343202	343646	344091	344536	344981	345425	345870	346315	31.59
47	346760	347204	347649	348094	348539	348984	349428	349873	350318	350763	351207	351652	31.94

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	112106	112774	113441	114109	114776	115444	116111	116779	117446	118114	118782	119449	16.97
17	120117	120784	121452	122119	122787	123454	124122	124789	125457	126124	126792	127460	17.49
18	128130	128799	129469	130138	130808	131477	132147	132816	133486	134156	134825	135495	18.02
19	136164	136834	137503	138173	138842	139512	140181	140851	141520	142190	142860	143529	18.54
20	144199	144870	145540	146210	146880	147550	148220	148890	149560	150231	150901	151571	19.06
21	152241	152911	153581	154251	154921	155591	156262	156932	157602	158272	158942	159612	19.58
22	160282	160953	161623	162293	162963	163633	164304	164974	165644	166314	166984	167654	20.10
23	168325	168995	169665	170335	171005	171676	172346	173016	173686	174356	175027	175697	20.62
24	176367	177037	177707	178378	179048	179718	180388	181058	181728	182399	183069	183739	21.13
25	184409	185079	185750	186420	187090	187760	188430	189101	189771	190441	191111	191781	21.64
26	192452	193122	193792	194462	195132	195802	196473	197143	197813	198483	199153	199824	22.15
27	200494	201164	201834	202504	203175	203845	204515	205185	205855	206526	207196	207866	22.67
28	208536	209206	209876	210547	211217	211887	212557	213227	213898	214568	215238	215908	23.18
29	216578	217249	217919	218589	219259	219929	220600	221270	221940	222610	223280	223950	23.68
30	224621	225291	225961	226631	227301	227972	228642	229312	229982	230652	231323	231993	24.19
31	232663	233333	234003	234674	235344	236014	236684	237354	238024	238695	239365	240035	24.70

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	567	963	1358	1753	2148	2543	2939	3334	3729	4124	4520	4915	8.55
1	5310	5705	6100	6496	6891	7286	7681	8077	8472	8867	9262	9707	9.01
2	10217	10726	11236	11746	12255	12765	13274	13784	14294	14803	15313	15822	9.47
3	16332	16842	17351	17861	18370	18880	19390	19899	20409	20918	21428	21958	10.00
4	22515	23072	23629	24186	24743	25300	25857	26414	26971	27528	28085	28642	10.52
5	29199	29756	30313	30870	31427	31984	32541	33098	33655	34212	34769	35342	11.06
6	35935	36528	37121	37714	38306	38899	39492	40085	40678	41271	41864	42457	11.60
7	43050	43643	44236	44829	45422	46015	46608	47201	47794	48387	48980	49585	12.14
8	50205	50825	51445	52065	52685	53305	53925	54545	55165	55785	56405	57025	12.68
9	57646	58266	58886	59506	60126	60746	61366	61986	62606	63226	63846	64475	13.22
10	65115	65755	66394	67034	67674	68314	68954	69594	70234	70874	71514	72154	13.76
11	72794	73433	74073	74713	75353	75993	76633	77273	77913	78553	79193	79838	14.30
12	80492	81146	81800	82454	83107	83761	84415	85069	85722	86376	87030	87684	14.83
13	88337	88991	89645	90299	90953	91606	92260	92914	93567	94221	94875	95533	15.37
14	96195	96858	97521	98183	98846	99509	100171	100834	101497	102159	102822	103485	15.90
15	104147	104810	105473	106135	106798	107461	108123	108786	109449	110111	110774	111439	16.44

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2.17	3.68	5.19	6.69	8.20	9.71	11.22	12.73	14.24	15.75	17.26	18.77	8.55
1	20.28	21.79	23.30	24.81	26.32	27.83	29.34	30.85	32.36	33.86	35.37	37.07	9.01
2	39.02	40.97	42.91	44.86	46.81	48.75	50.70	52.64	54.59	56.54	58.48	60.43	9.47
3	62.38	64.32	66.27	68.21	70.16	72.11	74.05	76.00	77.95	79.89	81.84	83.86	10.00
4	85.99	88.12	90.24	92.37	94.50	96.63	98.75	100.88	103.01	105.14	107.26	109.39	10.52
5	111.52	113.64	115.77	117.90	120.03	122.15	124.28	126.41	128.54	130.66	132.79	134.98	11.06
6	137.24	139.51	141.77	144.04	146.30	148.56	150.83	153.09	155.36	157.62	159.89	162.15	11.60
7	164.42	166.68	168.95	171.21	173.48	175.74	178.01	180.27	182.53	184.80	187.06	189.37	12.14
8	191.74	194.11	196.48	198.85	201.21	203.58	205.95	208.32	210.69	213.06	215.42	217.79	12.68
9	220.16	222.53	224.90	227.26	229.63	232.00	234.37	236.74	239.10	241.47	243.84	246.24	13.22
10	248.69	251.13	253.57	256.02	258.46	260.91	263.35	265.79	268.24	270.68	273.13	275.57	13.76
11	278.01	280.46	282.90	285.34	287.79	290.23	292.68	295.12	297.56	300.01	302.45	304.92	14.30
12	307.42	309.91	312.41	314.91	317.40	319.90	322.40	324.89	327.39	329.89	332.38	334.88	14.83
13	337.38	339.88	342.37	344.87	347.37	349.86	352.36	354.86	357.35	359.85	362.35	364.86	15.37
14	367.39	369.92	372.45	374.98	377.51	380.04	382.57	385.10	387.64	390.17	392.70	395.23	15.90
15	397.76	400.29	402.82	405.35	407.88	410.41	412.94	415.48	418.01	420.54	423.07	425.61	16.44

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	428.16	430.71	433.25	435.80	438.35	440.90	443.45	446.00	448.55	451.10	453.65	456.20	16.97
17	458.75	461.30	463.85	466.40	468.95	471.50	474.05	476.59	479.14	481.69	484.24	486.80	17.49
18	489.35	491.91	494.47	497.02	499.58	502.14	504.70	507.25	509.81	512.37	514.92	517.48	18.02
19	520.04	522.59	525.15	527.71	530.27	532.82	535.38	537.94	540.49	543.05	545.61	548.17	18.54
20	550.73	553.29	555.84	558.40	560.96	563.52	566.08	568.64	571.20	573.76	576.32	578.88	19.06
21	581.44	584.00	586.56	589.12	591.68	594.23	596.79	599.35	601.91	604.47	607.03	609.59	19.58
22	612.15	614.71	617.27	619.83	622.39	624.95	627.51	630.07	632.63	635.19	637.75	640.31	20.10
23	642.87	645.42	647.98	650.54	653.10	655.66	658.22	660.78	663.34	665.90	668.46	671.02	20.62
24	673.58	676.14	678.70	681.26	683.82	686.38	688.94	691.50	694.06	696.62	699.18	701.74	21.13
25	704.30	706.85	709.41	711.97	714.53	717.09	719.65	722.21	724.77	727.33	729.89	732.45	21.64
26	735.01	737.57	740.13	742.69	745.25	747.81	750.37	752.93	755.49	758.05	760.61	763.17	22.15
27	765.73	768.29	770.84	773.40	775.96	778.52	781.08	783.64	786.20	788.76	791.32	793.88	22.67
28	796.44	799.00	801.56	804.12	806.68	809.24	811.80	814.36	816.92	819.48	822.04	824.60	23.18
29	827.16	829.72	832.27	834.83	837.39	839.95	842.51	845.07	847.63	850.19	852.75	855.31	23.68
30	857.87	860.43	862.99	865.55	868.11	870.67	873.23	875.79	878.35	880.91	883.47	886.03	24.19
31	888.59	891.15	893.71	896.27	898.82	901.38	903.94	906.50	909.06	911.62	914.18	916.74	24.70

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	919.30	921.86	924.42	926.98	929.54	932.10	934.66	937.22	939.78	942.34	944.90	947.46	25.21
33	950.02	952.58	955.14	957.70	960.25	962.81	965.37	967.93	970.49	973.05	975.61	978.17	25.72
34	980.73	983.29	985.85	988.41	990.97	993.53	996.09	998.65	1001.21	1003.77	1006.33	1008.89	26.22
35	1011.45	1014.01	1016.57	1019.13	1021.68	1024.24	1026.80	1029.36	1031.92	1034.48	1037.04	1039.60	26.73
36	1042.16	1044.72	1047.28	1049.84	1052.40	1054.96	1057.52	1060.08	1062.64	1065.20	1067.76	1070.32	27.23
37	1072.88	1075.44	1078.00	1080.56	1083.11	1085.67	1088.23	1090.79	1093.35	1095.91	1098.47	1101.03	27.74
38	1103.59	1106.15	1108.71	1111.27	1113.83	1116.39	1118.95	1121.51	1124.07	1126.63	1129.19	1131.75	28.24
39	1134.31	1136.87	1139.42	1141.98	1144.54	1147.10	1149.66	1152.22	1154.78	1157.34	1159.90	1162.46	28.75
40	1165.02	1167.58	1170.14	1172.70	1175.26	1177.82	1180.38	1182.94	1185.50	1188.06	1190.62	1193.18	29.25
41	1195.74	1198.29	1200.85	1203.41	1205.97	1208.20	1210.00	1211.80	1213.59	1215.39	1217.19	1218.99	29.76
42	1220.79	1222.58	1224.38	1226.18	1227.98	1229.77	1231.57	1233.37	1235.17	1236.96	1238.76	1240.56	30.17
43	1242.36	1244.16	1245.95	1247.75	1249.55	1251.30	1253.00	1254.70	1256.40	1258.10	1259.80	1261.49	30.53
44	1263.19	1264.89	1266.59	1268.29	1269.99	1271.69	1273.39	1275.08	1276.78	1278.48	1280.18	1281.88	30.88
45	1283.58	1285.28	1286.97	1288.67	1290.37	1292.07	1293.77	1295.47	1297.17	1298.86	1300.56	1302.26	31.23
46	1303.96	1305.66	1307.36	1309.06	1310.76	1312.45	1314.15	1315.85	1317.55	1319.25	1320.95	1322.65	31.59
47	1324.34	1326.04	1327.74	1329.44	1331.14	1332.84	1334.54	1336.23	1337.93	1339.63	1341.33	1343.03	31.94

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1344.73	1346.43	1348.13	1349.82	1351.52	1353.22	1354.92	1356.62	1358.32	1360.02	1361.71	1363.41	32.31
49	1365.11	1366.81	1368.51	1370.21	1371.91	1373.61	1375.30	1377.00	1378.70	1380.40	1382.10	1383.80	32.67
50	1385.50	1387.19	1388.89	1390.59	1392.29	1393.99	1395.69	1397.39	1399.09	1400.78	1402.48	1404.18	33.05
51	1405.88	1407.58	1409.28	1410.98	1412.67	1414.00	1414.85	1415.70	1416.55	1417.40	1418.25	1419.10	33.42
52	1419.95	1420.80											33.68

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	726	1064	1401	1739	2076	2414	2752	3089	3427	3764	4102	4439	8.57
1	4777	5115	5452	5790	6127	6465	6803	7140	7478	7815	8178	8682	8.97
2	9186	9689	10193	10697	11201	11704	12208	12712	13216	13720	14223	14727	9.39
3	15231	15735	16238	16742	17246	17750	18254	18757	19261	19765	20276	20829	9.91
4	21381	21934	22486	23039	23592	24144	24697	25250	25802	26355	26907	27460	10.44
5	28013	28565	29118	29670	30223	30776	31328	31881	32434	32986	33544	34134	10.97
6	34724	35313	35903	36493	37083	37672	38262	38852	39441	40031	40621	41210	11.51
7	41800	42390	42979	43569	44159	44749	45338	45928	46518	47107	47701	48319	12.05
8	48937	49554	50172	50790	51407	52025	52643	53260	53878	54496	55113	55731	12.59
9	56349	56966	57584	58202	58819	59437	60055	60672	61290	61908	62528	63167	13.13
10	63805	64443	65081	65720	66358	66996	67634	68272	68911	69549	70187	70825	13.67
11	71464	72102	72740	73378	74017	74655	75293	75931	76569	77208	77848	78501	14.21
12	79154	79806	80459	81112	81764	82417	83070	83722	84375	85028	85680	86333	14.74
13	86986	87639	88291	88944	89597	90249	90902	91555	92207	92860	93514	94176	15.28
14	94838	95500	96162	96825	97487	98149	98811	99473	100135	100797	101459	102121	15.81
15	102784	103446	104108	104770	105432	106094	106756	107418	108080	108742	109405	110073	16.35

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	110740	111407	112074	112742	113409	114076	114744	115411	116078	116746	117413	118080	16.88
17	118748	119415	120082	120750	121417	122084	122752	123419	124086	124754	125421	126091	17.41
18	126760	127430	128099	128769	129438	130108	130777	131447	132116	132786	133455	134125	17.93
19	134794	135464	136133	136803	137472	138142	138811	139481	140150	140820	141489	142159	18.46
20	142830	143500	144170	144840	145510	146180	146850	147520	148191	148861	149531	150201	18.98
21	150871	151541	152211	152881	153552	154222	154892	155562	156232	156902	157572	158242	19.50
22	158913	159583	160253	160923	161593	162264	162934	163604	164274	164944	165615	166285	20.01
23	166955	167625	168295	168966	169636	170306	170976	171646	172316	172987	173657	174327	20.53
24	174997	175667	176338	177008	177678	178348	179018	179689	180359	181029	181699	182369	21.04
25	183039	183710	184380	185050	185720	186390	187061	187731	188401	189071	189741	190411	21.56
26	191082	191752	192422	193092	193762	194433	195103	195773	196443	197114	197784	198454	22.07
27	199124	199794	200464	201135	201805	202475	203145	203815	204486	205156	205826	206496	22.58
28	207166	207837	208507	209177	209847	210517	211188	211858	212528	213198	213868	214538	23.09
29	215209	215879	216549	217219	217889	218560	219230	219900	220570	221240	221911	222581	23.60
30	223251	223921	224591	225261	225932	226602	227272	227942	228612	229283	229953	230623	24.11
31	231293	231963	232634	233304	233974	234644	235314	235985	236655	237325	237995	238665	24.62

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	239336	240006	240676	241346	242016	242686	243357	244027	244697	245367	246037	246708	25.12
33	247378	248048	248718	249388	250059	250729	251399	252069	252739	253410	254080	254750	25.63
34	255420	256090	256760	257431	258101	258771	259441	260111	260782	261452	262122	262792	26.14
35	263462	264133	264803	265473	266143	266813	267484	268154	268824	269494	270164	270834	26.64
36	271505	272175	272845	273515	274185	274856	275526	276196	276866	277536	278206	278877	27.15
37	279547	280217	280887	281557	282228	282898	283568	284238	284908	285579	286249	286919	27.65
38	287589	288259	288929	289600	290270	290940	291610	292280	292950	293621	294291	294961	28.16
39	295631	296301	296972	297642	298312	298982	299652	300323	300993	301663	302333	303003	28.66
40	303674	304344	305014	305684	306354	307024	307695	308365	309035	309705	310375	311045	29.17
41	311716	312386	313056	313726	314370	314867	315364	315860	316357	316853	317350	317846	29.67
42	318343	318840	319336	319833	320330	320826	321323	321819	322316	322813	323309	323806	30.09
43	324302	324799	325296	325792	326281	326726	327171	327615	328060	328505	328950	329394	30.47
44	329839	330284	330729	331173	331618	332063	332508	332952	333397	333842	334287	334731	30.82
45	335176	335621	336066	336511	336955	337400	337845	338290	338734	339179	339624	340069	31.17
46	340514	340958	341403	341848	342293	342737	343182	343627	344072	344516	344961	345406	31.53
47	345851	346295	346740	347185	347630	348075	348519	348964	349409	349854	350298	350743	31.88

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	351188	351633	352077	352522	352967	353412	353857	354301	354746	355191	355636	356080	32.25
49	356525	356970	357415	357859	358304	358749	359194	359639	360083	360528	360973	361418	32.61
50	361862	362307	362752	363197	363641	364086	364531	364976	365420	365865	366310	366755	32.98
51	367200	367644	368089	368534	368945	369168	369390	369612	369835	370057	370279	370502	33.36
52	370724	370947	371169	371391	371614	371836							33.60

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

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RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.28

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2.77	4.06	5.35	6.64	7.93	9.22	10.51	11.80	13.09	14.38	15.67	16.96	8.57
1	18.24	19.53	20.82	22.11	23.40	24.69	25.98	27.27	28.56	29.85	31.23	33.16	8.97
2	35.08	37.01	38.93	40.85	42.78	44.70	46.63	48.55	50.47	52.40	54.32	56.25	9.39
3	58.17	60.09	62.02	63.94	65.87	67.79	69.71	71.64	73.56	75.49	77.44	79.55	9.91
4	81.66	83.77	85.88	87.99	90.10	92.21	94.32	96.43	98.54	100.65	102.76	104.88	10.44
5	106.99	109.10	111.21	113.32	115.43	117.54	119.65	121.76	123.87	125.98	128.11	130.36	10.97
6	132.62	134.87	137.12	139.37	141.63	143.88	146.13	148.38	150.63	152.89	155.14	157.39	11.51
7	159.64	161.90	164.15	166.40	168.65	170.90	173.16	175.41	177.66	179.91	182.18	184.54	12.05
8	186.90	189.26	191.62	193.98	196.33	198.69	201.05	203.41	205.77	208.13	210.49	212.85	12.59
9	215.21	217.57	219.92	222.28	224.64	227.00	229.36	231.72	234.08	236.44	238.81	241.25	13.13
10	243.68	246.12	248.56	251.00	253.43	255.87	258.31	260.75	263.18	265.62	268.06	270.50	13.67
11	272.93	275.37	277.81	280.25	282.68	285.12	287.56	290.00	292.43	294.87	297.32	299.81	14.21
12	302.30	304.80	307.29	309.78	312.27	314.77	317.26	319.75	322.24	324.74	327.23	329.72	14.74
13	332.22	334.71	337.20	339.69	342.19	344.68	347.17	349.67	352.16	354.65	357.15	359.68	15.28
14	362.21	364.74	367.26	369.79	372.32	374.85	377.38	379.91	382.44	384.96	387.49	390.02	15.81
15	392.55	395.08	397.61	400.14	402.67	405.19	407.72	410.25	412.78	415.31	417.84	420.39	16.35

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	422.94	425.49	428.03	430.58	433.13	435.68	438.23	440.78	443.33	445.88	448.42	450.97	16.88
17	453.52	456.07	458.62	461.17	463.72	466.26	468.81	471.36	473.91	476.46	479.01	481.57	17.41
18	484.12	486.68	489.24	491.79	494.35	496.91	499.46	502.02	504.58	507.14	509.69	512.25	17.93
19	514.81	517.36	519.92	522.48	525.03	527.59	530.15	532.70	535.26	537.82	540.38	542.94	18.46
20	545.49	548.05	550.61	553.17	555.73	558.29	560.85	563.41	565.97	568.53	571.09	573.65	18.98
21	576.21	578.77	581.32	583.88	586.44	589.00	591.56	594.12	596.68	599.24	601.80	604.36	19.50
22	606.92	609.48	612.04	614.60	617.16	619.72	622.28	624.84	627.40	629.96	632.51	635.07	20.01
23	637.63	640.19	642.75	645.31	647.87	650.43	652.99	655.55	658.11	660.67	663.23	665.79	20.53
24	668.35	670.91	673.47	676.03	678.59	681.15	683.71	686.27	688.83	691.39	693.94	696.50	21.04
25	699.06	701.62	704.18	706.74	709.30	711.86	714.42	716.98	719.54	722.10	724.66	727.22	21.56
26	729.78	732.34	734.90	737.46	740.02	742.58	745.14	747.70	750.26	752.82	755.38	757.93	22.07
27	760.49	763.05	765.61	768.17	770.73	773.29	775.85	778.41	780.97	783.53	786.09	788.65	22.58
28	791.21	793.77	796.33	798.89	801.45	804.01	806.57	809.13	811.69	814.25	816.81	819.36	23.09
29	821.92	824.48	827.04	829.60	832.16	834.72	837.28	839.84	842.40	844.96	847.52	850.08	23.60
30	852.64	855.20	857.76	860.32	862.88	865.44	868.00	870.56	873.12	875.68	878.24	880.79	24.11
31	883.35	885.91	888.47	891.03	893.59	896.15	898.71	901.27	903.83	906.39	908.95	911.51	24.62

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	914.07	916.63	919.19	921.75	924.31	926.87	929.43	931.99	934.55	937.11	939.67	942.23	25.12
33	944.79	947.34	949.90	952.46	955.02	957.58	960.14	962.70	965.26	967.82	970.38	972.94	25.63
34	975.50	978.06	980.62	983.18	985.74	988.30	990.86	993.42	995.98	998.54	1001.10	1003.66	26.14
35	1006.22	1008.77	1011.33	1013.89	1016.45	1019.01	1021.57	1024.13	1026.69	1029.25	1031.81	1034.37	26.64
36	1036.93	1039.49	1042.05	1044.61	1047.17	1049.73	1052.29	1054.85	1057.41	1059.97	1062.53	1065.08	27.15
37	1067.65	1070.20	1072.76	1075.32	1077.88	1080.44	1083.00	1085.56	1088.12	1090.68	1093.24	1095.80	27.65
38	1098.36	1100.92	1103.48	1106.04	1108.60	1111.16	1113.72	1116.28	1118.84	1121.40	1123.96	1126.51	28.16
39	1129.07	1131.63	1134.19	1136.75	1139.31	1141.87	1144.43	1146.99	1149.55	1152.11	1154.67	1157.23	28.66
40	1159.79	1162.35	1164.91	1167.47	1170.03	1172.59	1175.15	1177.71	1180.27	1182.83	1185.39	1187.94	29.17
41	1190.50	1193.06	1195.62	1198.18	1200.64	1202.54	1204.44	1206.33	1208.23	1210.13	1212.02	1213.92	29.67
42	1215.82	1217.71	1219.61	1221.51	1223.40	1225.30	1227.20	1229.09	1230.99	1232.89	1234.78	1236.68	30.09
43	1238.58	1240.47	1242.37	1244.27	1246.13	1247.83	1249.53	1251.23	1252.93	1254.63	1256.32	1258.02	30.47
44	1259.72	1261.42	1263.12	1264.82	1266.52	1268.21	1269.91	1271.61	1273.31	1275.01	1276.71	1278.41	30.82
45	1280.10	1281.80	1283.50	1285.20	1286.90	1288.60	1290.30	1292.00	1293.69	1295.39	1297.09	1298.79	31.17
46	1300.49	1302.19	1303.89	1305.58	1307.28	1308.98	1310.68	1312.38	1314.08	1315.78	1317.48	1319.17	31.53
47	1320.87	1322.57	1324.27	1325.97	1327.67	1329.37	1331.06	1332.76	1334.46	1336.16	1337.86	1339.56	31.88

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#4 WING SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1341.26	1342.96	1344.65	1346.35	1348.05	1349.75	1351.45	1353.15	1354.85	1356.54	1358.24	1359.94	32.25
49	1361.64	1363.34	1365.04	1366.74	1368.44	1370.13	1371.83	1373.53	1375.23	1376.93	1378.63	1380.33	32.61
50	1382.02	1383.72	1385.42	1387.12	1388.82	1390.52	1392.22	1393.91	1395.61	1397.31	1399.01	1400.71	32.98
51	1402.41	1404.11	1405.81	1407.50	1409.07	1409.92	1410.77	1411.62	1412.47	1413.32	1414.17	1415.02	33.36
52	1415.87	1416.72	1417.57	1418.42	1419.27	1420.12							33.60

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	353006	353451	353896	354340	354785	355230	355675	356119	356564	357009	357454	357898	32.37
49	358343	358788	359233	359678	360122	360567	361012	361457	361901	362346	362791	363236	32.74
50	363680	364125	364570	365015	365460	365904	366349	366794	367239	367683	368128	368573	33.11
51	369018	369462	369907	370352	370797	371242	371526	371749	371971				33.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	242075	242745	243415	244086	244756	245426	246096	246766	247437	248107	248777	249447	25.29
33	250117	250788	251458	252128	252798	253468	254139	254809	255479	256149	256819	257489	25.80
34	258160	258830	259500	260170	260840	261511	262181	262851	263521	264191	264862	265532	26.31
35	266202	266872	267542	268213	268883	269553	270223	270893	271563	272234	272904	273574	26.81
36	274244	274914	275584	276255	276925	277595	278265	278935	279606	280276	280946	281616	27.32
37	282286	282957	283627	284297	284967	285637	286308	286978	287648	288318	288988	289658	27.83
38	290329	290999	291669	292339	293009	293679	294350	295020	295690	296360	297030	297701	28.33
39	298371	299041	299711	300381	301052	301722	302392	303062	303732	304403	305073	305743	28.84
40	306413	307083	307753	308424	309094	309764	310434	311104	311775	312445	313115	313785	29.34
41	314455	315125	315796	316466	317136	317806	318314	318759	319204	319648	320093	320538	29.84
42	320983	321428	321872	322317	322762	323207	323651	324096	324541	324986	325430	325875	30.26
43	326320	326765	327209	327654	328099	328544	328989	329433	329878	330323	330768	331212	30.60
44	331657	332102	332547	332992	333436	333881	334326	334771	335215	335660	336105	336550	30.94
45	336994	337439	337884	338329	338774	339218	339663	340108	340553	340997	341442	341887	31.29
46	342332	342776	343221	343666	344111	344555	345000	345445	345890	346335	346779	347224	31.65
47	347669	348114	348558	349003	349448	349893	350337	350782	351227	351672	352117	352561	32.01

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	113474	114141	114809	115477	116144	116812	117480	118147	118815	119483	120150	120818	17.06
17	121486	122153	122821	123489	124156	124824	125492	126159	126827	127495	128163	128830	17.58
18	129499	130169	130838	131508	132177	132847	133517	134186	134856	135525	136195	136864	18.11
19	137534	138204	138873	139543	140212	140882	141552	142221	142891	143560	144230	144899	18.63
20	145569	146239	146909	147580	148250	148920	149590	150260	150930	151600	152270	152941	19.15
21	153611	154281	154951	155621	156291	156961	157631	158301	158972	159642	160312	160982	19.67
22	161652	162322	162992	163663	164333	165003	165673	166343	167014	167684	168354	169024	20.19
23	169695	170365	171035	171705	172375	173045	173716	174386	175056	175726	176396	177067	20.70
24	177737	178407	179077	179747	180418	181088	181758	182428	183098	183769	184439	185109	21.22
25	185779	186449	187119	187790	188460	189130	189800	190470	191141	191811	192481	193151	21.73
26	193821	194492	195162	195832	196502	197172	197843	198513	199183	199853	200523	201193	22.24
27	201864	202534	203204	203874	204544	205215	205885	206555	207225	207895	208566	209236	22.75
28	209906	210576	211246	211917	212587	213257	213927	214597	215267	215938	216608	217278	23.26
29	217948	218618	219289	219959	220629	221299	221969	222640	223310	223980	224650	225320	23.77
30	225991	226661	227331	228001	228671	229341	230012	230682	231352	232022	232692	233363	24.28
31	234033	234703	235373	236043	236714	237384	238054	238724	239394	240065	240735	241405	24.79

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	327	781	1235	1688	2142	2596	3050	3504	3958	4412	4865	5319	8.53
1	5773	6227	6681	7135	7588	8042	8496	8950	9404	9858	10312	10765	9.04
2	11263	11779	12294	12809	13324	13839	14354	14870	15385	15900	16415	16930	9.56
3	17445	17960	18476	18991	19506	20021	20536	21051	21567	22082	22597	23112	10.09
4	23660	24222	24783	25344	25905	26466	27027	27589	28150	28711	29272	29833	10.62
5	30395	30956	31517	32078	32639	33200	33762	34323	34884	35445	36006	36567	11.15
6	37154	37750	38346	38942	39538	40134	40730	41327	41923	42519	43115	43711	11.69
7	44307	44903	45499	46095	46691	47288	47884	48480	49076	49672	50268	50864	12.23
8	51479	52102	52724	53346	53969	54591	55213	55836	56458	57080	57703	58325	12.77
9	58947	59570	60192	60814	61437	62059	62681	63304	63926	64548	65171	65793	13.31
10	66429	67071	67712	68354	68995	69637	70278	70919	71561	72202	72844	73485	13.85
11	74127	74768	75410	76051	76693	77334	77976	78617	79259	79900	80542	81183	14.39
12	81834	82489	83144	83798	84453	85108	85763	86417	87072	87727	88382	89036	14.93
13	89691	90346	91001	91655	92310	92965	93620	94274	94929	95584	96239	96893	15.46
14	97554	98217	98880	99544	100207	100870	101533	102196	102860	103523	104186	104849	16.00
15	105512	106175	106839	107502	108165	108828	109491	110154	110818	111481	112144	112807	16.53

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.29

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.25	2.98	4.71	6.45	8.18	9.92	11.65	13.38	15.12	16.85	18.58	20.32	8.53
1	22.05	23.78	25.52	27.25	28.98	30.72	32.45	34.18	35.92	37.65	39.38	41.12	9.04
2	43.02	44.98	46.95	48.92	50.89	52.85	54.82	56.79	58.76	60.72	62.69	64.66	9.56
3	66.63	68.59	70.56	72.53	74.50	76.46	78.43	80.40	82.37	84.33	86.30	88.27	10.09
4	90.36	92.51	94.65	96.79	98.94	101.08	103.22	105.37	107.51	109.65	111.80	113.94	10.62
5	116.08	118.23	120.37	122.51	124.66	126.80	128.94	131.09	133.23	135.37	137.52	139.66	11.15
6	141.90	144.17	146.45	148.73	151.00	153.28	155.56	157.83	160.11	162.39	164.66	166.94	11.69
7	169.22	171.49	173.77	176.05	178.32	180.60	182.88	185.15	187.43	189.71	191.98	194.26	12.23
8	196.61	198.99	201.36	203.74	206.12	208.49	210.87	213.25	215.62	218.00	220.38	222.75	12.77
9	225.13	227.51	229.88	232.26	234.64	237.02	239.39	241.77	244.15	246.52	248.90	251.28	13.31
10	253.71	256.16	258.61	261.06	263.51	265.96	268.41	270.86	273.31	275.76	278.21	280.66	13.85
11	283.11	285.56	288.00	290.46	292.90	295.35	297.80	300.25	302.70	305.15	307.60	310.05	14.39
12	312.54	315.04	317.54	320.04	322.54	325.04	327.54	330.05	332.55	335.05	337.55	340.05	14.93
13	342.55	345.05	347.55	350.05	352.55	355.05	357.55	360.05	362.55	365.05	367.55	370.05	15.46
14	372.58	375.11	377.64	380.18	382.71	385.24	387.78	390.31	392.84	395.37	397.91	400.44	16.00
15	402.97	405.50	408.04	410.57	413.10	415.64	418.17	420.70	423.23	425.77	428.30	430.83	16.53

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 1 OF 4

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	433.38	435.93	438.48	441.03	443.58	446.13	448.68	451.23	453.78	456.33	458.88	461.43	17.06
17	463.98	466.53	469.08	471.63	474.18	476.73	479.28	481.83	484.38	486.93	489.48	492.03	17.58
18	494.58	497.14	499.70	502.25	504.81	507.37	509.93	512.48	515.04	517.60	520.16	522.71	18.11
19	525.27	527.83	530.38	532.94	535.50	538.06	540.61	543.17	545.73	548.28	550.84	553.40	18.63
20	555.96	558.52	561.08	563.64	566.20	568.75	571.31	573.87	576.43	578.99	581.55	584.11	19.15
21	586.67	589.23	591.79	594.35	596.91	599.47	602.03	604.58	607.14	609.70	612.26	614.82	19.67
22	617.38	619.94	622.50	625.06	627.62	630.18	632.74	635.30	637.86	640.42	642.98	645.54	20.19
23	648.10	650.66	653.22	655.78	658.34	660.89	663.45	666.01	668.57	671.13	673.69	676.25	20.70
24	678.81	681.37	683.93	686.49	689.05	691.61	694.17	696.73	699.29	701.85	704.41	706.97	21.22
25	709.53	712.09	714.65	717.21	719.77	722.32	724.88	727.44	730.00	732.56	735.12	737.68	21.73
26	740.24	742.80	745.36	747.92	750.48	753.04	755.60	758.16	760.72	763.28	765.84	768.40	22.24
27	770.96	773.52	776.08	778.64	781.20	783.76	786.31	788.87	791.43	793.99	796.55	799.11	22.75
28	801.67	804.23	806.79	809.35	811.91	814.47	817.03	819.59	822.15	824.71	827.27	829.83	23.26
29	832.39	834.95	837.51	840.07	842.63	845.19	847.75	850.30	852.86	855.42	857.98	860.54	23.77
30	863.10	865.66	868.22	870.78	873.34	875.90	878.46	881.02	883.58	886.14	888.70	891.26	24.28
31	893.82	896.38	898.94	901.50	904.06	906.62	909.18	911.73	914.29	916.85	919.41	921.97	24.79

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 2 OF 4

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	924.53	927.09	929.65	932.21	934.77	937.33	939.89	942.45	945.01	947.57	950.13	952.69	25.29
33	955.25	957.81	960.37	962.93	965.49	968.05	970.61	973.17	975.72	978.28	980.84	983.40	25.80
34	985.96	988.52	991.08	993.64	996.20	998.76	1001.32	1003.88	1006.44	1009.00	1011.56	1014.12	26.31
35	1016.68	1019.24	1021.80	1024.36	1026.92	1029.48	1032.04	1034.59	1037.15	1039.71	1042.27	1044.83	26.81
36	1047.39	1049.95	1052.51	1055.07	1057.63	1060.19	1062.75	1065.31	1067.87	1070.43	1072.99	1075.55	27.32
37	1078.11	1080.67	1083.23	1085.79	1088.35	1090.91	1093.47	1096.02	1098.58	1101.14	1103.70	1106.26	27.83
38	1108.82	1111.38	1113.94	1116.50	1119.06	1121.62	1124.18	1126.74	1129.30	1131.86	1134.42	1136.98	28.33
39	1139.54	1142.10	1144.66	1147.22	1149.78	1152.33	1154.90	1157.45	1160.01	1162.57	1165.13	1167.69	28.84
40	1170.25	1172.81	1175.37	1177.93	1180.49	1183.05	1185.61	1188.17	1190.73	1193.29	1195.85	1198.41	29.34
41	1200.97	1203.53	1206.09	1208.65	1211.21	1213.76	1215.70	1217.40	1219.10	1220.80	1222.50	1224.20	29.84
42	1225.90	1227.60	1229.29	1230.99	1232.69	1234.39	1236.09	1237.79	1239.49	1241.18	1242.88	1244.58	30.26
43	1246.28	1247.98	1249.68	1251.38	1253.08	1254.77	1256.47	1258.17	1259.87	1261.57	1263.27	1264.97	30.60
44	1266.66	1268.36	1270.06	1271.76	1273.46	1275.16	1276.86	1278.56	1280.25	1281.95	1283.65	1285.35	30.94
45	1287.05	1288.75	1290.45	1292.14	1293.84	1295.54	1297.24	1298.94	1300.64	1302.34	1304.04	1305.73	31.29
46	1307.43	1309.13	1310.83	1312.53	1314.23	1315.93	1317.62	1319.32	1321.02	1322.72	1324.42	1326.12	31.65
47	1327.82	1329.52	1331.21	1332.91	1334.61	1336.31	1338.01	1339.71	1341.41	1343.10	1344.80	1346.50	32.01

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 3 OF 4

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1348.20	1349.90	1351.60	1353.30	1354.99	1356.69	1358.39	1360.09	1361.79	1363.49	1365.19	1366.89	32.37
49	1368.58	1370.28	1371.98	1373.68	1375.38	1377.08	1378.78	1380.47	1382.17	1383.87	1385.57	1387.27	32.74
50	1388.97	1390.67	1392.36	1394.06	1395.76	1397.46	1399.16	1400.86	1402.56	1404.26	1405.95	1407.65	33.11
51	1409.35	1411.05	1412.75	1414.45	1416.15	1417.85	1418.93	1419.78	1420.63				33.48

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 4 OF 4

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	352097	352542	352986	353431	353876	354321	354766	355210	355655	356100	356545	356989	32.31
49	357434	357879	358324	358769	359213	359658	360103	360548	360992	361437	361882	362327	32.67
50	362771	363216	363661	364106	364550	364995	365440	365885	366330	366774	367219	367664	33.05
51	368109	368553	368998	369443	369888	370236	370458	370680	370903	371125	371348	371570	33.42
52	371792	372015											33.68

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 4 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	240705	241376	242046	242716	243386	244056	244726	245397	246067	246737	247407	248077	25.21
33	248748	249418	250088	250758	251428	252098	252769	253439	254109	254779	255449	256120	25.72
34	256790	257460	258130	258800	259471	260141	260811	261481	262151	262822	263492	264162	26.22
35	264832	265502	266172	266843	267513	268183	268853	269523	270194	270864	271534	272204	26.73
36	272874	273545	274215	274885	275555	276225	276896	277566	278236	278906	279576	280246	27.23
37	280917	281587	282257	282927	283597	284267	284938	285608	286278	286948	287618	288289	27.74
38	288959	289629	290299	290969	291640	292310	292980	293650	294320	294991	295661	296331	28.24
39	297001	297671	298341	299012	299682	300352	301022	301692	302362	303033	303703	304373	28.75
40	305043	305713	306384	307054	307724	308394	309064	309735	310405	311075	311745	312415	29.25
41	313085	313756	314426	315096	315766	316349	316820	317291	317762	318232	318703	319174	29.76
42	319644	320115	320586	321056	321527	321998	322469	322939	323410	323881	324351	324822	30.17
43	325293	325763	326234	326705	327175	327635	328080	328524	328969	329414	329859	330303	30.53
44	330748	331193	331638	332082	332527	332972	333417	333862	334306	334751	335196	335641	30.88
45	336085	336530	336975	337420	337864	338309	338754	339199	339643	340088	340533	340978	31.23
46	341423	341867	342312	342757	343202	343646	344091	344536	344981	345425	345870	346315	31.59
47	346760	347204	347649	348094	348539	348984	349428	349873	350318	350763	351207	351652	31.94

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 3 OF 4

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	112106	112774	113441	114109	114776	115444	116111	116779	117446	118114	118782	119449	16.97
17	120117	120784	121452	122119	122787	123454	124122	124789	125457	126124	126792	127460	17.49
18	128130	128799	129469	130138	130808	131477	132147	132816	133486	134156	134825	135495	18.02
19	136164	136834	137503	138173	138842	139512	140181	140851	141520	142190	142860	143529	18.54
20	144199	144870	145540	146210	146880	147550	148220	148890	149560	150231	150901	151571	19.06
21	152241	152911	153581	154251	154921	155591	156262	156932	157602	158272	158942	159612	19.58
22	160282	160953	161623	162293	162963	163633	164304	164974	165644	166314	166984	167654	20.10
23	168325	168995	169665	170335	171005	171676	172346	173016	173686	174356	175027	175697	20.62
24	176367	177037	177707	178378	179048	179718	180388	181058	181728	182399	183069	183739	21.13
25	184409	185079	185750	186420	187090	187760	188430	189101	189771	190441	191111	191781	21.64
26	192452	193122	193792	194462	195132	195802	196473	197143	197813	198483	199153	199824	22.15
27	200494	201164	201834	202504	203175	203845	204515	205185	205855	206526	207196	207866	22.67
28	208536	209206	209876	210547	211217	211887	212557	213227	213898	214568	215238	215908	23.18
29	216578	217249	217919	218589	219259	219929	220600	221270	221940	222610	223280	223950	23.68
30	224621	225291	225961	226631	227301	227972	228642	229312	229982	230652	231323	231993	24.19
31	232663	233333	234003	234674	235344	236014	236684	237354	238024	238695	239365	240035	24.70

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 2 OF 4

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SOUNDING TABLE

WATERMAN LASH — 4 WING SW BALLAST TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	567	963	1358	1753	2148	2543	2939	3334	3729	4124	4520	4915	8.55
1	5310	5705	6100	6496	6891	7286	7681	8077	8472	8867	9262	9707	9.01
2	10217	10726	11236	11746	12255	12765	13274	13784	14294	14803	15313	15822	9.47
3	16332	16842	17351	17861	18370	18880	19390	19899	20409	20918	21428	21958	10.00
4	22515	23072	23629	24186	24743	25300	25857	26414	26971	27528	28085	28642	10.52
5	29199	29756	30313	30870	31427	31984	32541	33098	33655	34212	34769	35342	11.06
6	35935	36528	37121	37714	38306	38899	39492	40085	40678	41271	41864	42457	11.60
7	43050	43643	44236	44829	45422	46015	46608	47201	47794	48387	48980	49585	12.14
8	50205	50825	51445	52065	52685	53305	53925	54545	55165	55785	56405	57025	12.68
9	57646	58266	58886	59506	60126	60746	61366	61986	62606	63226	63846	64475	13.22
10	65115	65755	66394	67034	67674	68314	68954	69594	70234	70874	71514	72154	13.76
11	72794	73433	74073	74713	75353	75993	76633	77273	77913	78553	79193	79838	14.30
12	80492	81146	81800	82454	83107	83761	84415	85069	85722	86376	87030	87684	14.83
13	88337	88991	89645	90299	90953	91606	92260	92914	93567	94221	94875	95533	15.37
14	96195	96858	97521	98183	98846	99509	100171	100834	101497	102159	102822	103485	15.90
15	104147	104810	105473	106135	106798	107461	108123	108786	109449	110111	110774	111439	16.44

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 INCHES CAP. = 372028.25 GALLONS VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 1 OF 4

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RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.30

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2.17	3.68	5.19	6.69	8.20	9.71	11.22	12.73	14.24	15.75	17.26	18.77	8.55
1	20.28	21.79	23.30	24.81	26.32	27.83	29.34	30.85	32.36	33.86	35.37	37.07	9.01
2	39.02	40.97	42.91	44.86	46.81	48.75	50.70	52.64	54.59	56.54	58.48	60.43	9.47
3	62.38	64.32	66.27	68.21	70.16	72.11	74.05	76.00	77.95	79.89	81.84	83.86	10.00
4	85.99	88.12	90.24	92.37	94.50	96.63	98.75	100.88	103.01	105.14	107.26	109.39	10.52
5	111.52	113.64	115.77	117.90	120.03	122.15	124.28	126.41	128.54	130.66	132.79	134.98	11.06
6	137.24	139.51	141.77	144.04	146.30	148.56	150.83	153.09	155.36	157.62	159.89	162.15	11.60
7	164.42	166.68	168.95	171.21	173.48	175.74	178.01	180.27	182.53	184.80	187.06	189.37	12.14
8	191.74	194.11	196.48	198.85	201.21	203.58	205.95	208.32	210.69	213.06	215.42	217.79	12.68
9	220.16	222.53	224.90	227.26	229.63	232.00	234.37	236.74	239.10	241.47	243.84	246.24	13.22
10	248.69	251.13	253.57	256.02	258.46	260.91	263.35	265.79	268.24	270.68	273.13	275.57	13.76
11	278.01	280.46	282.90	285.34	287.79	290.23	292.68	295.12	297.56	300.01	302.45	304.92	14.30
12	307.42	309.91	312.41	314.91	317.40	319.90	322.40	324.89	327.39	329.89	332.38	334.88	14.83
13	337.38	339.88	342.37	344.87	347.37	349.86	352.36	354.86	357.35	359.85	362.35	364.86	15.37
14	367.39	369.92	372.45	374.98	377.51	380.04	382.57	385.10	387.64	390.17	392.70	395.23	15.90
15	397.76	400.29	402.82	405.35	407.88	410.41	412.94	415.48	418.01	420.54	423.07	425.61	16.44

TANK 100 PERCENT FULL   SOUNDING = 52 FT.   1 INCHES   CAP. =   1420.85 S.W.LTON   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 1 OF 4

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	428.16	430.71	433.25	435.80	438.35	440.90	443.45	446.00	448.55	451.10	453.65	456.20	16.97
17	458.75	461.30	463.85	466.40	468.95	471.50	474.05	476.59	479.14	481.69	484.24	486.80	17.49
18	489.35	491.91	494.47	497.02	499.58	502.14	504.70	507.25	509.81	512.37	514.92	517.48	18.02
19	520.04	522.59	525.15	527.71	530.27	532.82	535.38	537.94	540.49	543.05	545.61	548.17	18.54
20	550.73	553.29	555.84	558.40	560.96	563.52	566.08	568.64	571.20	573.76	576.32	578.88	19.06
21	581.44	584.00	586.56	589.12	591.68	594.23	596.79	599.35	601.91	604.47	607.03	609.59	19.58
22	612.15	614.71	617.27	619.83	622.39	624.95	627.51	630.07	632.63	635.19	637.75	640.31	20.10
23	642.87	645.42	647.98	650.54	653.10	655.66	658.22	660.78	663.34	665.90	668.46	671.02	20.62
24	673.58	676.14	678.70	681.26	683.82	686.38	688.94	691.50	694.06	696.62	699.18	701.74	21.13
25	704.30	706.85	709.41	711.97	714.53	717.09	719.65	722.21	724.77	727.33	729.89	732.45	21.64
26	735.01	737.57	740.13	742.69	745.25	747.81	750.37	752.93	755.49	758.05	760.61	763.17	22.15
27	765.73	768.29	770.84	773.40	775.96	778.52	781.08	783.64	786.20	788.76	791.32	793.88	22.67
28	796.44	799.00	801.56	804.12	806.68	809.24	811.80	814.36	816.92	819.48	822.04	824.60	23.18
29	827.16	829.72	832.27	834.83	837.39	839.95	842.51	845.07	847.63	850.19	852.75	855.31	23.68
30	857.87	860.43	862.99	865.55	868.11	870.67	873.23	875.79	878.35	880.91	883.47	886.03	24.19
31	888.59	891.15	893.71	896.27	898.82	901.38	903.94	906.50	909.06	911.62	914.18	916.74	24.70

TANK 100 PERCENT FULL   SOUNDING = 52 FT.   1 INCHES   CAP. =   1420.85 S.W.LTON   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 2 OF 4

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	919.30	921.86	924.42	926.98	929.54	932.10	934.66	937.22	939.78	942.34	944.90	947.46	25.21
33	950.02	952.58	955.14	957.70	960.25	962.81	965.37	967.93	970.49	973.05	975.61	978.17	25.72
34	980.73	983.29	985.85	988.41	990.97	993.53	996.09	998.65	1001.21	1003.77	1006.33	1008.89	26.22
35	1011.45	1014.01	1016.57	1019.13	1021.68	1024.24	1026.80	1029.36	1031.92	1034.48	1037.04	1039.60	26.73
36	1042.16	1044.72	1047.28	1049.84	1052.40	1054.96	1057.52	1060.08	1062.64	1065.20	1067.76	1070.32	27.23
37	1072.88	1075.44	1078.00	1080.56	1083.11	1085.67	1088.23	1090.79	1093.35	1095.91	1098.47	1101.03	27.74
38	1103.59	1106.15	1108.71	1111.27	1113.83	1116.39	1118.95	1121.51	1124.07	1126.63	1129.19	1131.75	28.24
39	1134.31	1136.87	1139.42	1141.98	1144.54	1147.10	1149.66	1152.22	1154.78	1157.34	1159.90	1162.46	28.75
40	1165.02	1167.58	1170.14	1172.70	1175.26	1177.82	1180.38	1182.94	1185.50	1188.06	1190.62	1193.18	29.25
41	1195.74	1198.29	1200.85	1203.41	1205.97	1208.20	1210.00	1211.80	1213.59	1215.39	1217.19	1218.99	29.76
42	1220.79	1222.58	1224.38	1226.18	1227.98	1229.77	1231.57	1233.37	1235.17	1236.96	1238.76	1240.56	30.17
43	1242.36	1244.16	1245.95	1247.75	1249.55	1251.30	1253.00	1254.70	1256.40	1258.10	1259.80	1261.49	30.53
44	1263.19	1264.89	1266.59	1268.29	1269.99	1271.69	1273.39	1275.08	1276.78	1278.48	1280.18	1281.88	30.88
45	1283.58	1285.28	1286.97	1288.67	1290.37	1292.07	1293.77	1295.47	1297.17	1298.86	1300.56	1302.26	31.23
46	1303.96	1305.66	1307.36	1309.06	1310.76	1312.45	1314.15	1315.85	1317.55	1319.25	1320.95	1322.65	31.59
47	1324.34	1326.04	1327.74	1329.44	1331.14	1332.84	1334.54	1336.23	1337.93	1339.63	1341.33	1343.03	31.94

TANK 100 PERCENT FULL   SOUNDING = 52 FT.   1 INCHES   CAP. =   1420.85 S.W.LTON   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 3 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1344.73	1346.43	1348.13	1349.82	1351.52	1353.22	1354.92	1356.62	1358.32	1360.02	1361.71	1363.41	32.31
49	1365.11	1366.81	1368.51	1370.21	1371.91	1373.61	1375.30	1377.00	1378.70	1380.40	1382.10	1383.80	32.67
50	1385.50	1387.19	1388.89	1390.59	1392.29	1393.99	1395.69	1397.39	1399.09	1400.78	1402.48	1404.18	33.05
51	1405.88	1407.58	1409.28	1410.98	1412.67	1414.00	1414.85	1415.70	1416.55	1417.40	1418.25	1419.10	33.42
52	1419.95	1420.80											33.68

TANK 100 PERCENT FULL   SOUNDING = 52 FT.   1 INCHES   CAP. =   1420.85 S.W.LTON   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.120 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 4 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	726	1064	1401	1739	2076	2414	2752	3089	3427	3764	4102	4439	8.57
1	4777	5115	5452	5790	6127	6465	6803	7140	7478	7815	8178	8682	8.97
2	9186	9689	10193	10697	11201	11704	12208	12712	13216	13720	14223	14727	9.39
3	15231	15735	16238	16742	17246	17750	18254	18757	19261	19765	20276	20829	9.91
4	21381	21934	22486	23039	23592	24144	24697	25250	25802	26355	26907	27460	10.44
5	28013	28565	29118	29670	30223	30776	31328	31881	32434	32986	33544	34134	10.97
6	34724	35313	35903	36493	37083	37672	38262	38852	39441	40031	40621	41210	11.51
7	41800	42390	42979	43569	44159	44749	45338	45928	46518	47107	47701	48319	12.05
8	48937	49554	50172	50790	51407	52025	52643	53260	53878	54496	55113	55731	12.59
9	56349	56966	57584	58202	58819	59437	60055	60672	61290	61908	62528	63167	13.13
10	63805	64443	65081	65720	66358	66996	67634	68272	68911	69549	70187	70825	13.67
11	71464	72102	72740	73378	74017	74655	75293	75931	76569	77208	77848	78501	14.21
12	79154	79806	80459	81112	81764	82417	83070	83722	84375	85028	85680	86333	14.74
13	86986	87639	88291	88944	89597	90249	90902	91555	92207	92860	93514	94176	15.28
14	94838	95500	96162	96825	97487	98149	98811	99473	100135	100797	101459	102121	15.81
15	102784	103446	104108	104770	105432	106094	106756	107418	108080	108742	109405	110073	16.35

TANK 100 PERCENT FULL   SOUNDING = 0 FT.   0 INCHES   CAP. = 372028.25 GALLONS   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	110740	111407	112074	112742	113409	114076	114744	115411	116078	116746	117413	118080	16.88
17	118748	119415	120082	120750	121417	122084	122752	123419	124086	124754	125421	126091	17.41
18	126760	127430	128099	128769	129438	130108	130777	131447	132116	132786	133455	134125	17.93
19	134794	135464	136133	136803	137472	138142	138811	139481	140150	140820	141489	142159	18.46
20	142830	143500	144170	144840	145510	146180	146850	147520	148191	148861	149531	150201	18.98
21	150871	151541	152211	152881	153552	154222	154892	155562	156232	156902	157572	158242	19.50
22	158913	159583	160253	160923	161593	162264	162934	163604	164274	164944	165615	166285	20.01
23	166955	167625	168295	168966	169636	170306	170976	171646	172316	172987	173657	174327	20.53
24	174997	175667	176338	177008	177678	178348	179018	179689	180359	181029	181699	182369	21.04
25	183039	183710	184380	185050	185720	186390	187061	187731	188401	189071	189741	190411	21.56
26	191082	191752	192422	193092	193762	194433	195103	195773	196443	197114	197784	198454	22.07
27	199124	199794	200464	201135	201805	202475	203145	203815	204486	205156	205826	206496	22.58
28	207166	207837	208507	209177	209847	210517	211188	211858	212528	213198	213868	214538	23.09
29	215209	215879	216549	217219	217889	218560	219230	219900	220570	221240	221911	222581	23.60
30	223251	223921	224591	225261	225932	226602	227272	227942	228612	229283	229953	230623	24.11
31	231293	231963	232634	233304	233974	234644	235314	235985	236655	237325	237995	238665	24.62

TANK 100 PERCENT FULL   SOUNDING = 0 FT.   0 INCHES   CAP. = 372028.25 GALLONS   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	239336	240006	240676	241346	242016	242686	243357	244027	244697	245367	246037	246708	25.12
33	247378	248048	248718	249388	250059	250729	251399	252069	252739	253410	254080	254750	25.63
34	255420	256090	256760	257431	258101	258771	259441	260111	260782	261452	262122	262792	26.14
35	263462	264133	264803	265473	266143	266813	267484	268154	268824	269494	270164	270834	26.64
36	271505	272175	272845	273515	274185	274856	275526	276196	276866	277536	278206	278877	27.15
37	279547	280217	280887	281557	282228	282898	283568	284238	284908	285579	286249	286919	27.65
38	287589	288259	288929	289600	290270	290940	291610	292280	292950	293621	294291	294961	28.16
39	295631	296301	296972	297642	298312	298982	299652	300323	300993	301663	302333	303003	28.66
40	303674	304344	305014	305684	306354	307024	307695	308365	309035	309705	310375	311045	29.17
41	311716	312386	313056	313726	314370	314867	315364	315860	316357	316853	317350	317846	29.67
42	318343	318840	319336	319833	320330	320826	321323	321819	322316	322813	323309	323806	30.09
43	324302	324799	325296	325792	326281	326726	327171	327615	328060	328505	328950	329394	30.47
44	329839	330284	330729	331173	331618	332063	332508	332952	333397	333842	334287	334731	30.82
45	335176	335621	336066	336511	336955	337400	337845	338290	338734	339179	339624	340069	31.17
46	340514	340958	341403	341848	342293	342737	343182	343627	344072	344516	344961	345406	31.53
47	345851	346295	346740	347185	347630	348075	348519	348964	349409	349854	350298	350743	31.88

TANK 100 PERCENT FULL   SOUNDING = 0 FT.   0 INCHES   CAP. = 372028.25 GALLONS   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 3 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING   FR 79-85 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	351188	351633	352077	352522	352967	353412	353857	354301	354746	355191	355636	356080	32.25
49	356525	356970	357415	357859	358304	358749	359194	359639	360083	360528	360973	361418	32.61
50	361862	362307	362752	363197	363641	364086	364531	364976	365420	365865	366310	366755	32.98
51	367200	367644	368089	368534	368945	369168	369390	369612	369835	370057	370279	370502	33.36
52	370724	370947	371169	371391	371614	371836							33.60

TANK 100 PERCENT FULL   SOUNDING = 0 FT.   0 INCHES   CAP. = 372028.25 GALLONS   VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK   8.500 FT. ABV. B.L.   STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH   52.440 FT.

SHEET 4 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.31

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2.77	4.06	5.35	6.64	7.93	9.22	10.51	11.80	13.09	14.38	15.67	16.96	8.57
1	18.24	19.53	20.82	22.11	23.40	24.69	25.98	27.27	28.56	29.85	31.23	33.16	8.97
2	35.08	37.01	38.93	40.85	42.78	44.70	46.63	48.55	50.47	52.40	54.32	56.25	9.39
3	58.17	60.09	62.02	63.94	65.87	67.79	69.71	71.64	73.56	75.49	77.44	79.55	9.91
4	81.66	83.77	85.88	87.99	90.10	92.21	94.32	96.43	98.54	100.65	102.76	104.88	10.44
5	106.99	109.10	111.21	113.32	115.43	117.54	119.65	121.76	123.87	125.98	128.11	130.36	10.97
6	132.62	134.87	137.12	139.37	141.63	143.88	146.13	148.38	150.63	152.89	155.14	157.39	11.51
7	159.64	161.90	164.15	166.40	168.65	170.90	173.16	175.41	177.66	179.91	182.18	184.54	12.05
8	186.90	189.26	191.62	193.98	196.33	198.69	201.05	203.41	205.77	208.13	210.49	212.85	12.59
9	215.21	217.57	219.92	222.28	224.64	227.00	229.36	231.72	234.08	236.44	238.81	241.25	13.13
10	243.68	246.12	248.56	251.00	253.43	255.87	258.31	260.75	263.18	265.62	268.06	270.50	13.67
11	272.93	275.37	277.81	280.25	282.68	285.12	287.56	290.00	292.43	294.87	297.32	299.81	14.21
12	302.30	304.80	307.29	309.78	312.27	314.77	317.26	319.75	322.24	324.74	327.23	329.72	14.74
13	332.22	334.71	337.20	339.69	342.19	344.68	347.17	349.67	352.16	354.65	357.15	359.68	15.28
14	362.21	364.74	367.26	369.79	372.32	374.85	377.38	379.91	382.44	384.96	387.49	390.02	15.81
15	392.55	395.08	397.61	400.14	402.67	405.19	407.72	410.25	412.78	415.31	417.84	420.39	16.35

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	422.94	425.49	428.03	430.58	433.13	435.68	438.23	440.78	443.33	445.88	448.42	450.97	16.88
17	453.52	456.07	458.62	461.17	463.72	466.26	468.81	471.36	473.91	476.46	479.01	481.57	17.41
18	484.12	486.68	489.24	491.79	494.35	496.91	499.46	502.02	504.58	507.14	509.69	512.25	17.93
19	514.81	517.36	519.92	522.48	525.03	527.59	530.15	532.70	535.26	537.82	540.38	542.94	18.46
20	545.49	548.05	550.61	553.17	555.73	558.29	560.85	563.41	565.97	568.53	571.09	573.65	18.98
21	576.21	578.77	581.32	583.88	586.44	589.00	591.56	594.12	596.68	599.24	601.80	604.36	19.50
22	606.92	609.48	612.04	614.60	617.16	619.72	622.28	624.84	627.40	629.96	632.51	635.07	20.01
23	637.63	640.19	642.75	645.31	647.87	650.43	652.99	655.55	658.11	660.67	663.23	665.79	20.53
24	668.35	670.91	673.47	676.03	678.59	681.15	683.71	686.27	688.83	691.39	693.94	696.50	21.04
25	699.06	701.62	704.18	706.74	709.30	711.86	714.42	716.98	719.54	722.10	724.66	727.22	21.56
26	729.78	732.34	734.90	737.46	740.02	742.58	745.14	747.70	750.26	752.82	755.38	757.93	22.07
27	760.49	763.05	765.61	768.17	770.73	773.29	775.85	778.41	780.97	783.53	786.09	788.65	22.58
28	791.21	793.77	796.33	798.89	801.45	804.01	806.57	809.13	811.69	814.25	816.81	819.36	23.09
29	821.92	824.48	827.04	829.60	832.16	834.72	837.28	839.84	842.40	844.96	847.52	850.08	23.60
30	852.64	855.20	857.76	860.32	862.88	865.44	868.00	870.56	873.12	875.68	878.24	880.79	24.11
31	883.35	885.91	888.47	891.03	893.59	896.15	898.71	901.27	903.83	906.39	908.95	911.51	24.62

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	914.07	916.63	919.19	921.75	924.31	926.87	929.43	931.99	934.55	937.11	939.67	942.23	25.12
33	944.79	947.34	949.90	952.46	955.02	957.58	960.14	962.70	965.26	967.82	970.38	972.94	25.63
34	975.50	978.06	980.62	983.18	985.74	988.30	990.86	993.42	995.98	998.54	1001.10	1003.66	26.14
35	1006.22	1008.77	1011.33	1013.89	1016.45	1019.01	1021.57	1024.13	1026.69	1029.25	1031.81	1034.37	26.64
36	1036.93	1039.49	1042.05	1044.61	1047.17	1049.73	1052.29	1054.85	1057.41	1059.97	1062.53	1065.08	27.15
37	1067.65	1070.20	1072.76	1075.32	1077.88	1080.44	1083.00	1085.56	1088.12	1090.68	1093.24	1095.80	27.65
38	1098.36	1100.92	1103.48	1106.04	1108.60	1111.16	1113.72	1116.28	1118.84	1121.40	1123.96	1126.51	28.16
39	1129.07	1131.63	1134.19	1136.75	1139.31	1141.87	1144.43	1146.99	1149.55	1152.11	1154.67	1157.23	28.66
40	1159.79	1162.35	1164.91	1167.47	1170.03	1172.59	1175.15	1177.71	1180.27	1182.83	1185.39	1187.94	29.17
41	1190.50	1193.06	1195.62	1198.18	1200.64	1202.54	1204.44	1206.33	1208.23	1210.13	1212.02	1213.92	29.67
42	1215.82	1217.71	1219.61	1221.51	1223.40	1225.30	1227.20	1229.09	1230.99	1232.89	1234.78	1236.68	30.09
43	1238.58	1240.47	1242.37	1244.27	1246.13	1247.83	1249.53	1251.23	1252.93	1254.63	1256.32	1258.02	30.47
44	1259.72	1261.42	1263.12	1264.82	1266.52	1268.21	1269.91	1271.61	1273.31	1275.01	1276.71	1278.41	30.82
45	1280.10	1281.80	1283.50	1285.20	1286.90	1288.60	1290.30	1292.00	1293.69	1295.39	1297.09	1298.79	31.17
46	1300.49	1302.19	1303.89	1305.58	1307.28	1308.98	1310.68	1312.38	1314.08	1315.78	1317.48	1319.17	31.53
47	1320.87	1322.57	1324.27	1325.97	1327.67	1329.37	1331.06	1332.76	1334.46	1336.16	1337.86	1339.56	31.88

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

4 WING SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 79-85 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1341.26	1342.96	1344.65	1346.35	1348.05	1349.75	1351.45	1353.15	1354.85	1356.54	1358.24	1359.94	32.25
49	1361.64	1363.34	1365.04	1366.74	1368.44	1370.13	1371.83	1373.53	1375.23	1376.93	1378.63	1380.33	32.61
50	1382.02	1383.72	1385.42	1387.12	1388.82	1390.52	1392.22	1393.91	1395.61	1397.31	1399.01	1400.71	32.98
51	1402.41	1404.11	1405.81	1407.50	1409.07	1409.92	1410.77	1411.62	1412.47	1413.32	1414.17	1415.02	33.36
52	1415.87	1416.72	1417.57	1418.42	1419.27	1420.12							33.60

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1420.85 S.W.LTON VCG = 33.70 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.179 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	392957	393462	393966	394473	394990	395506	396023	396539	397055	397572	398088	398605	29.91
49	399121	399638	400154	400671	401187	401704	402220	402737	403253	403770	404286	404803	30.20
50	405319	405836	406352	406833	407170	407508	407846	408183	408521	408859	409196	409534	30.49
51	409871	410209	410547	410884	411222	411559	411897	412235	412572	412910	413248	413585	30.71
52	413923	414260	414598	414937	415284	415630	415976	416323	416669	417015	417361	417708	30.91
53	418054	418400	418747	419093	419439	419785	420132	420478	420824	421171	421517	421863	31.12
54	422209	422556	422902	423250	423604	423958	424313	424667	425021	425375	425729	426084	31.34
55	426438	426792	427146	427501	427855	428209	428563	428918	429272	429626	429980	430334	31.57
56	430689	431043	431397	431753	432114	432475	432837	433198	433559	433921	434282	434643	31.80
57	435005	435366	435727	436089	436450	436811	437173	437534	437895	438257	438618	438979	32.04
58	439341	439702	440063	440426	440794	441162	441530	441898	442266	442635	443003	443371	32.29
59	443739	444107	444475	444843	445211	445579	445947	446315	446683	447052	447420	447788	32.55
60	448156	448524	448892	449197	449247	449298	449348	449399	449449	449500	449550	449601	32.81
61	449652	449702	449753										32.90

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	248919	251078	253237	255410	257634	259858	262083	264307	266531	268756	270980	273205	25.64
33	275429	277654	279878	282102	284327	286551	288776	291000	293224	295449	297673	299898	26.27
34	302122	304346	306571	308518	309355	310191	311028	311865	312701	313538	314375	315211	26.90
35	316048	316884	317721	318558	319394	320231	321068	321904	322741	323578	324414	325251	27.22
36	326088	326924	327761	328510	328906	329303	329700	330097	330493	330890	331287	331683	27.45
37	332080	332477	332874	333270	333667	334064	334461	334857	335254	335651	336047	336444	27.61
38	336841	337238	337634	338037	338466	338894	339322	339750	340179	340607	341035	341463	27.74
39	341892	342320	342748	343176	343605	344033	344461	344889	345318	345746	346174	346603	27.90
40	347031	347459	347887	348321	348774	349228	349681	350135	350588	351042	351495	351949	28.07
41	352402	352856	353309	353763	354216	354670	355123	355577	356030	356484	356937	357391	28.25
42	357844	358298	358751	359209	359683	360157	360630	361104	361578	362052	362526	362999	28.45
43	363473	363947	364421	364895	365368	365842	366316	366790	367264	367737	368211	368685	28.67
44	369159	369633	370106	370584	371074	371565	372055	372546	373036	373527	374017	374508	28.89
45	374999	375489	375980	376470	376961	377451	377942	378432	378923	379414	379904	380395	29.13
46	380885	381376	381866	382360	382864	383369	383874	384378	384883	385388	385892	386397	29.38
47	386901	387406	387911	388415	388920	389425	389929	390434	390938	391443	391948	392452	29.64

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	10816	10923	11029	11159	11382	11605	11828	12051	12273	12496	12719	12942	9.60
17	13165	13386	13611	13833	14056	14279	14502	14725	14948	15171	15393	15616	10.70
18	15639	16062	16285	16554	17010	17466	17922	18378	18834	19289	19745	20201	11.88
19	20657	21113	21569	22025	22480	22936	23392	23848	24304	24760	25216	25671	13.21
20	26127	26583	27039	27556	28316	29076	29836	30596	31356	32117	32877	33637	14.60
21	34397	35157	35917	36677	37437	38197	38958	39718	40478	41238	41998	42758	15.86
22	43518	44279	45039	45870	46984	48098	49212	50326	51440	52554	53668	54782	17.09
23	55897	57011	58125	59239	60353	61467	62581	63695	64809	65924	67038	68152	18.18
24	69266	70380	71494	72687	74192	75698	77204	78710	80216	81722	83228	84734	19.23
25	86240	87746	89252	90758	92264	93770	95276	96782	98287	99794	101299	102805	20.18
26	104311	105817	107323	108903	110776	112649	114522	116395	118269	120142	122015	123888	21.11
27	125762	127635	129508	131381	133254	135127	137001	138874	140747	142620	144493	146366	21.97
28	148240	150113	151986	153899	155968	158037	160106	162175	164244	166313	168382	170451	22.80
29	172520	174589	176658	178728	180797	182866	184935	187004	189073	191142	193211	195280	23.56
30	197349	199418	201487	203575	205734	207893	210052	212212	214371	216530	218689	220848	24.30
31	223008	225167	227326	229486	231645	233804	235963	238122	240282	242441	244600	246759	24.98

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	20	46	73	99	126	152	179	205	232	258	285	312	0.03
1	338	365	391	418	444	471	497	524	550	577	604	630	0.54
2	659	695	731	767	803	839	876	912	948	984	1020	1057	1.04
3	1093	1129	1165	1201	1237	1274	1310	1346	1382	1418	1454	1491	1.58
4	1527	1567	1608	1650	1691	1733	1774	1815	1857	1898	1940	1981	2.12
5	2023	2064	2106	2147	2189	2230	2272	2313	2355	2396	2438	2479	2.68
6	2521	2563	2612	2661	2710	2760	2809	2858	2907	2956	3005	3054	3.24
7	3103	3152	3201	3250	3299	3348	3397	3446	3495	3544	3593	3642	3.83
8	3691	3741	3794	3851	3908	3965	4022	4078	4135	4192	4249	4306	4.41
9	4362	4419	4476	4533	4590	4646	4703	4760	4817	4874	4930	4987	5.01
10	5044	5101	5158	5223	5288	5353	5418	5483	5548	5613	5678	5742	5.61
11	5807	5872	5937	6002	6067	6133	6198	6264	6329	6394	6460	6525	6.21
12	6590	6656	6721	6792	6866	6940	7014	7088	7162	7236	7310	7384	6.83
13	7458	7532	7606	7680	7754	7828	7902	7976	8050	8124	8198	8272	7.45
14	8346	8420	8494	8578	8684	8791	8897	9004	9111	9217	9324	9430	8.07
15	9537	9644	9750	9857	9963	10070	10177	10283	10390	10496	10603	10710	8.82

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 1 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 32

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.07	0.18	0.28	0.38	0.48	0.58	0.68	0.78	0.89	0.99	1.09	1.19	0.03
1	1.29	1.39	1.49	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.41	0.54
2	2.52	2.65	2.79	2.93	3.07	3.21	3.34	3.48	3.62	3.76	3.90	4.04	1.04
3	4.17	4.31	4.45	4.59	4.73	4.86	5.00	5.14	5.28	5.42	5.55	5.69	1.58
4	5.83	5.98	6.14	6.30	6.46	6.62	6.78	6.93	7.09	7.25	7.41	7.57	2.12
5	7.73	7.88	8.04	8.20	8.36	8.52	8.68	8.84	8.99	9.15	9.31	9.47	2.68
6	9.63	9.79	9.98	10.16	10.35	10.54	10.73	10.91	11.10	11.29	11.48	11.66	3.24
7	11.85	12.04	12.23	12.41	12.60	12.79	12.97	13.16	13.35	13.54	13.72	13.91	3.83
8	14.10	14.29	14.49	14.71	14.93	15.14	15.36	15.58	15.79	16.01	16.23	16.44	4.41
9	16.66	16.88	17.09	17.31	17.53	17.75	17.96	18.18	18.40	18.61	18.83	19.05	5.01
10	19.26	19.48	19.70	19.95	20.20	20.44	20.69	20.94	21.19	21.44	21.68	21.93	5.61
11	22.18	22.43	22.68	22.92	23.17	23.42	23.67	23.92	24.17	24.42	24.67	24.92	6.21
12	25.17	25.42	25.67	25.94	26.22	26.51	26.79	27.07	27.35	27.64	27.92	28.20	6.83
13	28.48	28.77	29.05	29.33	29.61	29.90	30.18	30.46	30.75	31.03	31.31	31.59	7.45
14	31.88	32.16	32.44	32.76	33.17	33.57	33.98	34.39	34.79	35.20	35.61	36.02	8.07
15	36.42	36.83	37.24	37.64	38.05	38.46	38.87	39.27	39.68	40.09	40.49	40.90	8.82

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	41.31	41.72	42.12	42.62	43.47	44.32	45.17	46.02	46.87	47.73	48.58	49.43	9.60
17	50.28	51.13	51.98	52.83	53.68	54.53	55.39	56.24	57.09	57.94	58.79	59.64	10.70
18	60.49	61.34	62.19	63.22	64.96	66.71	68.45	70.19	71.93	73.67	75.41	77.15	11.88
19	78.89	80.63	82.38	84.12	85.86	87.60	89.34	91.08	92.82	94.56	96.30	98.04	13.21
20	99.79	101.53	103.27	105.24	108.14	111.05	113.95	116.85	119.76	122.66	125.56	128.47	14.60
21	131.37	134.27	137.17	140.08	142.98	145.88	148.79	151.69	154.59	157.50	160.40	163.30	15.86
22	166.21	169.11	172.01	175.19	179.44	183.69	187.95	192.21	196.46	200.72	204.97	209.22	17.09
23	213.48	217.73	221.99	226.25	230.50	234.75	239.01	243.26	247.52	251.78	256.03	260.28	18.18
24	264.54	268.79	273.05	277.60	283.36	289.11	294.86	300.61	306.36	312.11	317.86	323.62	19.23
25	329.37	335.12	340.87	346.62	352.37	358.12	363.88	369.63	375.38	381.13	386.88	392.63	20.18
26	398.39	404.14	409.89	415.92	423.07	430.23	437.38	444.54	451.69	458.85	466.00	473.15	21.11
27	480.31	487.46	494.62	501.77	508.92	516.08	523.23	530.39	537.54	544.70	551.85	559.00	21.97
28	566.16	573.31	580.46	587.77	595.67	603.57	611.48	619.38	627.28	635.18	643.08	650.99	22.80
29	658.89	666.79	674.69	682.60	690.50	698.40	706.30	714.21	722.11	730.01	737.91	745.81	23.56
30	753.72	761.62	769.52	777.49	785.74	793.98	802.23	810.48	818.72	826.97	835.22	843.46	24.30
31	851.71	859.96	868.20	876.45	884.70	892.94	901.19	909.44	917.68	925.93	934.18	942.42	24.98

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	950.67	958.92	967.16	975.46	983.95	992.45	1000.95	1009.44	1017.94	1026.43	1034.93	1043.42	25.64
33	1051.92	1060.41	1068.91	1077.41	1085.90	1094.40	1102.89	1111.39	1119.88	1128.38	1136.87	1145.37	26.27
34	1153.86	1162.36	1170.85	1178.29	1181.49	1184.68	1187.88	1191.07	1194.27	1197.46	1200.66	1203.85	26.90
35	1207.05	1210.24	1213.44	1216.64	1219.83	1223.03	1226.22	1229.42	1232.61	1235.81	1239.00	1242.20	27.22
36	1245.39	1248.59	1251.78	1254.64	1256.16	1257.67	1259.19	1260.70	1262.22	1263.73	1265.25	1266.76	27.45
37	1268.28	1269.80	1271.31	1272.83	1274.34	1275.86	1277.37	1278.89	1280.40	1281.92	1283.43	1284.95	27.61
38	1286.46	1287.98	1289.49	1291.03	1292.67	1294.30	1295.94	1297.57	1299.21	1300.85	1302.48	1304.12	27.74
39	1305.75	1307.39	1309.02	1310.66	1312.29	1313.93	1315.57	1317.20	1318.84	1320.47	1322.11	1323.74	27.90
40	1325.38	1327.02	1328.65	1330.31	1332.04	1333.77	1335.50	1337.23	1338.97	1340.70	1342.43	1344.16	28.07
41	1345.89	1347.63	1349.36	1351.09	1352.82	1354.55	1356.29	1358.02	1359.75	1361.48	1363.21	1364.95	28.25
42	1366.68	1368.41	1370.14	1371.89	1373.70	1375.51	1377.32	1379.13	1380.94	1382.75	1384.56	1386.37	28.45
43	1388.18	1389.99	1391.80	1393.60	1395.41	1397.22	1399.03	1400.84	1402.65	1404.46	1406.27	1408.08	28.67
44	1409.89	1411.70	1413.51	1415.33	1417.21	1419.08	1420.95	1422.83	1424.70	1426.57	1428.45	1430.32	28.89
45	1432.19	1434.07	1435.94	1437.81	1439.69	1441.56	1443.44	1445.31	1447.18	1449.06	1450.93	1452.80	29.13
46	1454.68	1456.55	1458.42	1460.31	1462.24	1464.16	1466.09	1468.02	1469.94	1471.87	1473.80	1475.73	29.38
47	1477.65	1479.58	1481.51	1483.44	1485.36	1487.29	1489.22	1491.14	1493.07	1495.00	1496.93	1498.85	29.64

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1500.78	1502.71	1504.63	1506.57	1508.54	1510.52	1512.49	1514.46	1516.43	1518.41	1520.38	1522.35	29.91
49	1524.32	1526.30	1528.27	1530.24	1532.21	1534.19	1536.16	1538.13	1540.10	1542.08	1544.05	1546.02	30.20
50	1547.99	1549.97	1551.94	1553.78	1555.06	1556.35	1557.64	1558.93	1560.22	1561.51	1562.80	1564.09	30.49
51	1565.38	1566.67	1567.96	1569.25	1570.54	1571.83	1573.12	1574.41	1575.70	1576.99	1578.27	1579.56	30.71
52	1580.85	1582.14	1583.43	1584.73	1586.05	1587.37	1588.70	1590.02	1591.34	1592.66	1593.99	1595.31	30.91
53	1596.63	1597.95	1599.28	1600.60	1601.92	1603.24	1604.57	1605.89	1607.21	1608.53	1609.86	1611.18	31.12
54	1612.50	1613.82	1615.15	1616.48	1617.83	1619.18	1620.53	1621.[illegible]	1623.24	1624.59	1625.95	1627.30	31.34
55	1628.65	1630.00	1631.36	1632.71	1634.06	1635.42	1636.77	1638.12	1639.47	1640.83	1642.18	1643.53	31.57
56	1644.89	1646.24	1647.59	1648.95	1650.33	1651.71	1653.09	1654.47	1655.85	1657.23	1658.61	1659.99	31.80
57	1661.37	1662.75	1664.13	1665.51	1666.89	1668.27	1669.65	1671.03	1672.41	1673.79	1675.17	1676.55	32.04
58	1677.93	1679.31	1680.69	1682.07	1683.48	1684.89	1686.29	1687.70	1689.10	1690.51	1691.91	1693.32	32.29
59	1694.73	1696.13	1697.54	1698.94	1700.35	1701.76	1703.16	1704.57	1705.97	1707.38	1708.78	1710.19	32.55
60	1711.60	1713.00	1714.41	1715.57	1715.76	1715.96	1716.15	1716.34	1716.54	1716.73	1716.92	1717.12	32.81
61	1717.31	1717.50	1717.69										32.90

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

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C7-1000

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	394402	394917	395432	395948	396463	396978	397494	398009	398524	399039	399555	400070	29.98
49	400585	401100	401616	402131	402646	403161	403677	404192	404707	405223	405628	405983	30.27
50	406338	406693	407048	407403	407759	408114	408469	408824	409179	409534	409890	410245	30.54
51	410600	410955	411310	411665	412020	412376	412731	413086	413441	413796	414145	414490	30.74
52	414836	415181	415527	415872	416218	416563	416908	417254	417599	417945	418290	418636	30.95
53	418981	419327	419672	420018	420363	420708	421054	421399	421745	422090	422441	422795	31.17
54	423148	423502	423855	424209	424562	424916	425269	425623	425976	426330	426683	427037	31.39
55	427391	427744	428098	428451	428805	429158	429512	429865	430219	430572	430931	431291	31.62
56	431652	432013	432373	432734	433095	433455	433816	434177	434537	434898	435259	435619	31.85
57	435980	436341	436701	437062	437423	437783	438144	438505	438866	439226	439592	439959	32.10
58	440327	440694	441061	441429	441796	442164	442531	442899	443266	443634	444001	444368	32.35
59	444736	445103	445471	445838	446206	446573	446941	447308	447676	448043	448222	448315	32.61
60	448409	448502	448595	448689	448782	448875	448969	449062	449155	449249	449342	449436	32.83
61	449529	449622	449716										32.89

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L.

STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	254893	257112	259331	261550	263769	265988	268207	270426	272645	274865	277083	279302	25.79
33	281522	283741	285960	288179	290398	292617	294836	297055	299274	301494	302909	303960	26.42
34	305011	306062	307112	308163	309214	310265	311316	312366	313417	314468	315519	316569	26.97
35	317620	318671	319722	320773	321823	322874	323925	324976	326027	327077	327676	328069	27.26
36	328462	328856	329249	329642	330035	330428	330821	331215	331608	332001	332394	332787	27.51
37	333180	333574	333967	334360	334753	335146	335540	335933	336326	336719	337134	337560	27.64
38	337985	338410	338836	339261	339686	340112	340537	340962	341388	341813	342238	342664	27.78
39	343089	343514	343940	344365	344790	345216	345641	346066	346492	346917	347360	347811	27.94
40	348263	348714	349165	349616	350067	350519	350970	351421	351872	352324	352775	353226	28.11
41	353677	354129	354580	355031	355482	355933	356385	356836	357287	357738	358204	358676	28.30
42	359148	359620	360091	360563	361035	361507	361979	362451	362923	363395	363867	364339	28.50
43	364811	365283	365754	366226	366698	367170	367642	368114	368586	369058	369541	370030	28.72
44	370519	371008	371497	371986	372475	372964	373453	373942	374431	374920	375409	375898	28.94
45	376387	376876	377364	377853	378342	378831	379320	379809	380298	380787	381286	381789	29.19
46	382292	382795	383299	383802	384305	384808	385312	385815	386318	386821	387325	387828	29.44
47	388331	388834	389337	389841	390344	390847	391350	391854	392357	392860	393371	393887	29.71

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L.

STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	10917	11107	11298	11488	11679	11871	12062	12253	12444	12635	12826	13017	9.63
17	13208	13400	13591	13782	13973	14164	14355	14546	14737	14929	15269	15677	10.74
18	16085	16493	16901	17309	17717	18125	18533	18941	19349	19757	20165	20573	11.92
19	20982	21390	21798	22206	22614	23022	23430	23838	24246	24654	25271	25982	13.32
20	26694	27405	28117	28828	29540	30251	30963	31675	32386	33098	33809	34521	14.69
21	35232	35944	36655	37367	38078	38790	39502	40213	40925	41636	42596	43669	15.98
22	44742	45815	46888	47961	49034	50107	51180	52253	53326	54399	55471	56544	17.22
23	57617	58690	59763	60836	61909	62982	64055	65128	66201	67274	68630	70114	18.31
24	71599	73083	74567	76052	77536	79021	80505	81989	83474	84958	86443	87927	19.38
25	89412	90896	92380	93865	95349	96834	98318	99802	101287	102771	104512	106370	20.35
26	108229	110086	111944	113802	115660	117518	119376	121234	123092	124950	126808	128666	21.29
27	130524	132382	134240	136098	137956	139814	141672	143530	145387	147246	149242	151302	22.15
28	153363	155423	157483	159543	161603	163663	165723	167783	169843	171904	173964	176024	22.98
29	178084	180144	182204	184264	186324	188384	190445	192505	194565	196625	198749	200901	23.73
30	203054	205206	207358	209511	211664	213816	215969	218121	220274	222426	224579	226731	24.46
31	228884	231036	233189	235341	237494	239646	241799	243951	246104	248256	250454	252673	25.13

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L.

STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 2 OF 4

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SOUNDING TABLE

WATERMAN LASH

#7 SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	38	63	88	113	138	162	187	212	237	262	286	311	0.06
1	336	361	385	410	435	460	485	518	553	588	622	657	0.55
2	692	727	762	797	832	867	902	937	972	1006	1041	1076	1.06
3	1111	1146	1181	1216	1251	1286	1321	1357	1397	1437	1477	1517	1.60
4	1557	1597	1637	1677	1717	1757	1797	1837	1877	1917	1957	1997	2.14
5	2037	2077	2117	2157	2197	2237	2277	2317	2363	2410	2458	2505	2.70
6	2553	2600	2648	2695	2743	2790	2838	2885	2933	2980	3028	3075	3.27
7	3123	3170	3218	3265	3313	3360	3408	3455	3504	3560	3615	3670	3.85
8	3725	3781	3836	3891	3946	4002	4057	4112	4167	4223	4278	4333	4.44
9	4388	4444	4499	4554	4609	4665	4720	4775	4831	4891	4954	5018	5.03
10	5081	5144	5207	5270	5334	5397	5460	5523	5586	5650	5713	5776	5.63
11	5839	5902	5966	6029	6092	6156	6220	6283	6347	6413	6485	6558	6.24
12	6630	6703	6775	6847	6920	6992	7065	7137	7210	7282	7355	7427	6.85
13	7500	7572	7645	7717	7790	7862	7935	8007	8080	8152	8241	8333	7.48
14	8425	8517	8609	8701	8794	8887	8980	9073	9166	9259	9352	9445	8.12
15	9538	9631	9724	9817	9910	10002	10095	10188	10281	10374	10536	10727	8.83

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L.

STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 1 OF 4

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.15	0.24	0.34	0.43	0.53	0.62	0.71	0.81	0.90	1.00	1.09	1.19	0.06
1	1.28	1.38	1.47	1.57	1.66	1.76	1.85	1.98	2.11	2.24	2.38	2.51	0.55
2	2.64	2.78	2.91	3.04	3.18	3.31	3.44	3.58	3.71	3.84	3.98	4.11	1.06
3	4.24	4.38	4.51	4.64	4.78	4.91	5.04	5.18	5.34	5.49	5.64	5.79	1.60
4	5.95	6.10	6.25	6.40	6.56	6.71	6.86	7.02	7.17	7.32	7.47	7.63	2.14
5	7.78	7.93	8.08	8.24	8.39	8.54	8.70	8.85	9.02	9.20	9.39	9.57	2.70
6	9.75	9.93	10.11	10.29	10.47	10.66	10.84	11.02	11.20	11.38	11.56	11.74	3.27
7	11.93	12.11	12.29	12.47	12.65	12.83	13.01	13.20	13.38	13.59	13.81	14.02	3.85
8	14.23	14.44	14.65	14.86	15.07	15.28	15.49	15.71	15.92	16.13	16.34	16.55	4.44
9	16.76	16.97	17.18	17.39	17.60	17.82	18.03	18.24	18.45	18.68	18.92	19.16	5.03
10	19.40	19.65	19.89	20.13	20.37	20.61	20.85	21.09	21.34	21.58	21.82	22.06	5.63
11	22.30	22.54	22.78	23.03	23.27	23.51	23.75	24.00	24.24	24.49	24.77	25.04	6.24
12	25.32	25.60	25.88	26.15	26.43	26.71	26.98	27.26	27.54	27.81	28.09	28.37	6.85
13	28.64	28.92	29.20	29.47	29.75	30.03	30.30	30.58	30.86	31.14	31.48	31.83	7.48
14	32.18	32.53	32.88	33.23	33.59	33.94	34.30	34.65	35.01	35.36	35.72	36.07	8.12
15	36.43	36.78	37.14	37.49	37.85	38.20	38.56	38.91	39.27	39.62	40.24	40.97	8.83

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L. — STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 1 OF 4

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	41.69	42.42	43.15	43.88	44.61	45.34	46.07	46.80	47.53	48.26	48.99	49.72	9.63
17	50.45	51.18	51.91	52.64	53.37	54.10	54.83	55.56	56.29	57.02	58.31	59.87	10.74
18	61.43	62.99	64.55	66.11	67.67	69.22	70.78	72.34	73.90	75.46	77.02	78.57	11.92
19	80.13	81.69	83.25	84.81	86.37	87.92	89.48	91.04	92.60	94.16	96.51	99.23	13.32
20	101.95	104.67	107.38	110.10	112.82	115.54	118.25	120.97	123.69	126.41	129.12	131.84	14.69
21	134.56	137.28	139.99	142.71	145.43	148.15	150.86	153.58	156.30	159.02	162.68	166.78	15.98
22	170.88	174.98	179.07	183.17	187.27	191.37	195.47	199.56	203.66	207.76	211.86	215.95	17.22
23	220.05	224.15	228.25	232.35	236.44	240.54	244.64	248.74	252.83	256.93	262.11	267.78	18.31
24	273.45	279.12	284.79	290.46	296.13	301.80	307.47	313.13	318.80	324.47	330.14	335.81	19.38
25	341.48	347.15	352.82	358.49	364.16	369.83	375.50	381.17	386.83	392.50	399.15	406.25	20.35
26	413.35	420.44	427.54	434.63	441.73	448.82	455.92	463.02	470.11	477.21	484.30	491.40	21.29
27	498.50	505.59	512.69	519.78	526.88	533.98	541.07	548.17	555.26	562.36	569.99	577.85	22.15
28	585.72	593.59	601.46	609.33	617.19	625.06	632.93	640.80	648.67	656.53	664.40	672.27	22.98
29	680.14	688.01	695.87	703.74	711.61	719.48	727.35	735.21	743.08	750.95	759.06	767.28	23.73
30	775.50	783.72	791.94	800.17	808.39	816.61	824.83	833.05	841.27	849.49	857.71	865.93	24.46
31	874.15	882.37	890.59	898.82	907.04	915.26	923.48	931.70	939.92	948.14	956.54	965.01	25.13

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L. — STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 2 OF 4

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	973.49	981.96	990.44	998.91	1007.39	1015.86	1024.34	1032.81	1041.29	1049.76	1058.24	1066.71	25.79
33	1075.19	1083.66	1092.14	1100.61	1109.09	1117.56	1126.04	1134.51	1142.99	1151.46	1156.87	1160.88	26.42
34	1164.90	1168.91	1172.92	1176.94	1180.95	1184.96	1188.98	1192.99	1197.00	1201.02	1205.03	1209.04	26.97
35	1213.06	1217.07	1221.08	1225.09	1229.11	1233.12	1237.13	1241.15	1245.16	1249.17	1251.46	1252.96	27.26
36	1254.46	1255.96	1257.47	1258.97	1260.47	1261.97	1263.47	1264.97	1266.48	1267.98	1269.48	1270.98	27.51
37	1272.48	1273.98	1275.49	1276.99	1278.49	1279.99	1281.49	1282.99	1284.50	1286.00	1287.58	1289.21	27.64
38	1290.83	1292.46	1294.08	1295.71	1297.33	1298.95	1300.58	1302.20	1303.83	1305.45	1307.08	1308.70	27.78
39	1310.33	1311.95	1313.57	1315.20	1316.82	1318.45	1320.07	1321.70	1323.32	1324.95	1326.64	1328.36	27.94
40	1330.08	1331.81	1333.53	1335.25	1336.98	1338.70	1340.42	1342.15	1343.87	1345.59	1347.32	1349.04	28.11
41	1350.76	1352.49	1354.21	1355.93	1357.66	1359.38	1361.10	1362.83	1364.55	1366.27	1368.05	1369.85	28.30
42	1371.66	1373.46	1375.26	1377.06	1378.87	1380.67	1382.47	1384.27	1386.07	1387.88	1389.68	1391.48	28.50
43	1393.28	1395.09	1396.89	1398.69	1400.49	1402.30	1404.10	1405.90	1407.70	1409.51	1411.35	1413.22	28.72
44	1415.09	1416.95	1418.82	1420.69	1422.56	1424.42	1426.29	1428.16	1430.03	1431.89	1433.76	1435.63	28.94
45	1437.50	1439.36	1441.23	1443.10	1444.96	1446.83	1448.70	1450.57	1452.43	1454.30	1456.21	1458.13	29.19
46	1460.05	1461.97	1463.89	1465.82	1467.74	1469.66	1471.58	1473.50	1475.43	1477.35	1479.27	1481.19	29.44
47	1483.11	1485.03	1486.96	1488.88	1490.80	1492.72	1494.64	1496.57	1498.49	1500.41	1502.36	1504.33	29.71

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L. — STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 3 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1506.30	1508.27	1510.24	1512.20	1514.17	1516.14	1518.11	1520.07	1522.04	1524.01	1525.98	1527.95	29.98
49	1529.91	1531.88	1533.85	1535.82	1537.79	1539.75	1541.72	1543.69	1545.66	1547.63	1549.17	1550.53	30.27
50	1551.89	1553.24	1554.60	1555.95	1557.31	1558.67	1560.02	1561.38	1562.74	1564.09	1565.45	1566.81	30.54
51	1568.16	1569.52	1570.88	1572.23	1573.59	1574.94	1576.30	1577.66	1579.01	1580.37	1581.70	1583.02	30.74
52	1584.34	1585.66	1586.98	1588.30	1589.62	1590.94	1592.26	1593.58	1594.89	1596.21	1597.53	1598.85	30.95
53	1600.17	1601.49	1602.81	1604.13	1605.45	1606.77	1608.09	1609.41	1610.73	1612.05	1613.39	1614.74	31.17
54	1616.09	1617.44	1618.79	1620.14	1621.49	1622.84	1624.19	1625.54	1626.89	1628.24	1629.59	1630.94	31.39
55	1632.29	1633.64	1634.99	1636.34	1637.69	1639.04	1640.39	1641.74	1643.09	1644.44	1645.81	1647.19	31.62
56	1648.56	1649.94	1651.32	1652.70	1654.07	1655.45	1656.83	1658.21	1659.58	1660.96	1662.34	1663.72	31.85
57	1665.09	1666.47	1667.85	1669.23	1670.60	1671.98	1673.36	1674.74	1676.11	1677.49	1678.89	1680.29	32.10
58	1681.69	1683.10	1684.50	1685.90	1687.31	1688.71	1690.11	1691.52	1692.92	1694.32	1695.73	1697.13	32.35
59	1698.54	1699.94	1701.34	1702.75	1704.15	1705.55	1706.96	1708.36	1709.76	1711.17	1711.85	1712.21	32.61
60	1712.56	1712.92	1713.27	1713.63	1713.99	1714.34	1714.70	1715.06	1715.41	1715.77	1716.13	1716.48	32.83
61	1716.84	1717.20	1717.55										32.89

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.391 FT. ABV. B.L. — STRIKING PLATE 0.126 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 4 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	54	76	99	122	144	167	190	212	235	258	281	303	0.09
1	326	353	387	420	454	487	521	554	588	621	654	688	0.56
2	721	755	788	822	855	889	922	956	989	1023	1056	1090	1.08
3	1123	1157	1195	1233	1272	1310	1349	1387	1426	1464	1503	1541	1.61
4	1580	1618	1657	1695	1734	1772	1811	1849	1888	1926	1965	2003	2.16
5	2042	2080	2121	2167	2213	2259	2305	2351	2397	2443	2489	2535	2.72
6	2581	2627	2673	2719	2765	2811	2857	2903	2949	2995	3041	3087	3.29
7	3133	3179	3225	3277	3331	3384	3438	3492	3545	3599	3653	3707	3.87
8	3760	3814	3868	3921	3975	4029	4083	4136	4190	4244	4297	4351	4.46
9	4405	4458	4512	4568	4630	4691	4753	4814	4876	4938	4999	5061	5.06
10	5122	5184	5245	5307	5368	5430	5491	5553	5614	5676	5738	5799	5.66
11	5861	5922	5984	6045	6114	6185	6255	6326	6396	6467	6538	6608	6.26
12	6679	6750	6820	6891	6962	7032	7103	7174	7244	7315	7386	7456	6.88
13	7527	7598	7668	7739	7815	7898	7980	8063	8146	8229	8312	8395	7.50
14	8478	8561	8644	8727	8811	8894	8978	9062	9146	9230	9313	9397	8.15
15	9481	9565	9649	9732	9833	9992	10152	10312	10472	10631	10791	10951	8.81

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. — STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	11111	11271	11430	11590	11751	11911	12071	12232	12392	12553	12713	12873	9.71
17	13034	13194	13354	13515	13711	14074	14437	14800	15163	15526	15889	16252	10.72
18	16615	16978	17342	17705	18068	18431	18794	19157	19520	19883	20246	20609	12.00
19	20972	21335	21698	22062	22477	23139	23802	24464	25126	25789	26451	27113	13.41
20	27776	28438	29100	29763	30425	31087	31750	32412	33074	33737	34399	35062	14.78
21	35724	36386	37049	37711	38437	39465	40493	41521	42549	43576	44604	45632	16.12
22	46660	47688	48715	49743	50771	51799	52827	53855	54882	55910	56938	57966	17.33
23	58994	60021	61049	62077	63179	64630	66082	67533	68984	70436	71887	73338	18.48
24	74789	76240	77692	79143	80594	82045	83497	84948	86399	87851	89302	90753	19.53
25	92204	93656	95107	96558	98080	99931	101783	103635	105487	107339	109191	111043	20.53
26	112895	114746	116598	118450	120302	122154	124006	125858	127709	129562	131413	133265	21.45
27	135117	136969	138821	140673	142559	144610	146661	148712	150763	152814	154865	156915	22.34
28	158966	161017	163068	165119	167170	169220	171271	173322	175373	177424	179475	181525	23.14
29	183577	185627	187678	189729	191796	193942	196088	198233	200378	202524	204670	206815	23.90
30	208961	211106	213252	215397	217543	219688	221834	223979	226125	228270	230416	232561	24.61
31	234707	236852	238998	241144	243301	245514	247728	249942	252155	254369	256582	258796	25.29

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. — STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	261010	263223	265437	267651	269864	272077	274291	276505	278718	280932	283146	285359	25.93
33	287573	289786	292000	294214	296261	297525	298790	300055	301320	302585	303850	305114	26.57
34	306379	307644	308909	310174	311439	312703	313968	315233	316498	317763	319027	320292	27.00
35	321557	322822	324087	325352	326463	326852	327242	327632	328021	328411	328800	329190	27.34
36	329579	329969	330358	330748	331137	331527	331917	332306	332696	333085	333475	333864	27.54
37	334254	334643	335033	335423	335818	336240	336663	337085	337507	337929	338352	338774	27.67
38	339196	339619	340041	340463	340886	341308	341730	342153	342575	342997	343420	343842	27.82
39	344264	344687	345109	345531	345958	346407	346856	347305	347754	348203	348651	349100	27.98
40	349549	349998	350447	350896	351344	351793	352242	352691	353140	353589	354037	354486	28.15
41	354935	355384	355833	356282	356734	357204	357674	358144	358614	359084	359554	360024	28.34
42	360494	360964	361434	361904	362374	362844	363314	363784	364254	364724	365194	365664	28.55
43	366134	366604	367074	367544	368017	368504	368992	369479	369966	370453	370941	371428	28.77
44	371915	372402	372890	373377	373864	374352	374839	375326	375813	376301	376788	377275	29.00
45	377762	378250	378737	379224	379714	380216	380718	381219	381721	382223	382725	383227	29.25
46	383728	384230	384732	385234	385736	386237	386739	387241	387743	388245	388746	389248	29.50
47	389750	390252	390753	391255	391759	392273	392787	393301	393815	394329	394843	395357	29.77

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. — STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 3 OF 4

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SOUNDING TABLE

WATERMAN LASH — #7 SW BALLAST TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 101-121 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	395872	396386	396900	397414	397928	398442	398956	399470	399984	400498	401012	401526	30.05
49	402040	402554	403068	403582	404071	404444	404817	405189	405562	405935	406307	406680	30.33
50	407052	407425	407798	408170	408543	408915	409288	409661	410033	410406	410779	411151	30.57
51	411524	411897	412269	412642	413009	413354	413699	414043	414388	414733	415077	415422	30.79
52	415767	416111	416456	416800	417145	417490	417834	418179	418524	418868	419213	419558	31.00
53	419902	420247	420591	420936	421282	421635	421988	422340	422693	423046	423399	423752	31.22
54	424104	424457	424810	425163	425515	425868	426221	426574	426926	427279	427632	427985	31.44
55	428338	428690	429043	429396	429750	430110	430470	430830	431190	431550	431910	432270	31.67
56	432630	432990	433350	433710	434070	434430	434790	435150	435510	435870	436230	436590	31.91
57	436950	437310	437670	438031	438392	438759	439125	439492	439859	440226	440593	440960	32.15
58	441326	441693	442060	442427	442794	443160	443527	443894	444261	444628	444995	445361	32.41
59	445728	446095	446462	446829	447152	447267	447383	447498	447614	447729	447845	447960	32.67
60	448076	448191	448307	448423	448538	448654	448769	448885	449000	449116	449231	449347	32.81
61	449463	449578	449694										32.89

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 449793.13 GALLONS VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. — STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK — TOTAL LENGTH 65.233 FT. — SHEET 4 OF 4

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RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.34

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.20	0.29	0.38	0.46	0.55	0.64	0.72	0.81	0.90	0.98	1.07	1.16	0.09
1	1.24	1.35	1.48	1.60	1.73	1.86	1.99	2.12	2.24	2.37	2.50	2.63	0.56
2	2.76	2.88	3.01	3.14	3.27	3.39	3.52	3.65	3.78	3.91	4.03	4.16	1.08
3	4.29	4.42	4.56	4.71	4.86	5.00	5.15	5.30	5.44	5.59	5.74	5.89	1.61
4	6.03	6.18	6.33	6.47	6.62	6.77	6.92	7.06	7.21	7.36	7.50	7.65	2.16
5	7.80	7.94	8.10	8.28	8.45	8.63	8.80	8.98	9.16	9.33	9.51	9.68	2.72
6	9.86	10.03	10.21	10.38	10.56	10.74	10.91	11.09	11.26	11.44	11.61	11.79	3.29
7	11.96	12.14	12.32	12.52	12.72	12.93	13.13	13.34	13.54	13.75	13.95	14.16	3.87
8	14.36	14.57	14.77	14.98	15.18	15.39	15.59	15.80	16.00	16.21	16.41	16.62	4.46
9	16.82	17.03	17.23	17.45	17.68	17.92	18.15	18.39	18.62	18.86	19.09	19.33	5.06
10	19.56	19.80	20.03	20.27	20.50	20.74	20.97	21.21	21.44	21.68	21.91	22.15	5.66
11	22.38	22.62	22.85	23.09	23.35	23.62	23.89	24.16	24.43	24.70	24.97	25.24	6.26
12	25.51	25.78	26.05	26.32	26.59	26.86	27.13	27.40	27.67	27.94	28.21	28.48	6.88
13	28.75	29.02	29.29	29.56	29.85	30.16	30.48	30.80	31.11	31.43	31.75	32.06	7.50
14	32.38	32.70	33.01	33.33	33.65	33.97	34.29	34.61	34.93	35.25	35.57	35.89	8.15
15	36.21	36.53	36.85	37.17	37.55	38.16	38.77	39.38	39.99	40.60	41.21	41.82	8.81

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	42.43	43.04	43.66	44.27	44.88	45.49	46.10	46.72	47.33	47.94	48.55	49.17	9.71
17	49.78	50.39	51.00	51.62	52.36	53.75	55.14	56.52	57.91	59.30	60.68	62.07	10.72
18	63.46	64.84	66.23	67.62	69.00	70.39	71.78	73.16	74.55	75.94	77.32	78.71	12.00
19	80.10	81.48	82.87	84.26	85.84	88.37	90.90	93.43	95.96	98.49	101.02	103.55	13.41
20	106.08	108.61	111.14	113.67	116.20	118.73	121.26	123.79	126.32	128.85	131.38	133.91	14.78
21	136.44	138.97	141.50	144.03	146.80	150.73	154.65	158.58	162.50	166.43	170.35	174.28	16.12
22	178.20	182.13	186.05	189.98	193.90	197.83	201.76	205.68	209.61	213.53	217.46	221.38	17.33
23	225.31	229.23	233.16	237.08	241.29	246.84	252.38	257.92	263.46	269.01	274.55	280.09	18.48
24	285.64	291.18	296.72	302.26	307.81	313.35	318.89	324.43	329.98	335.52	341.06	346.60	19.53
25	352.15	357.69	363.23	368.77	374.59	381.66	388.73	395.80	402.88	409.95	417.02	424.09	20.53
26	431.17	438.24	445.31	452.39	459.46	466.53	473.60	480.68	487.75	494.82	501.89	508.97	21.45
27	516.04	523.11	530.18	537.26	544.46	552.29	560.13	567.96	575.79	583.63	591.46	599.29	22.34
28	607.12	614.96	622.79	630.62	638.45	646.29	654.12	661.95	669.78	677.62	685.45	693.28	23.14
29	701.12	708.95	716.78	724.61	732.51	740.70	748.90	757.09	765.28	773.48	781.67	789.87	23.90
30	798.06	806.26	814.45	822.65	830.84	839.03	847.23	855.42	863.61	871.81	880.00	888.20	24.61
31	896.39	904.59	912.78	920.98	929.21	937.67	946.12	954.58	963.03	971.49	979.94	988.39	25.29

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	996.85	1005.30	1013.76	1022.21	1030.66	1039.12	1047.57	1056.03	1064.48	1072.94	1081.39	1089.84	25.93
33	1098.30	1106.75	1115.21	1123.66	1131.48	1136.31	1141.14	1145.97	1150.80	1155.63	1160.46	1165.29	26.57
34	1170.12	1174.95	1179.78	1184.62	1189.45	1194.28	1199.11	1203.94	1208.77	1213.60	1218.43	1223.26	27.00
35	1228.09	1232.92	1237.75	1242.58	1246.83	1248.31	1249.80	1251.29	1252.78	1254.27	1255.75	1257.24	27.34
36	1258.73	1260.22	1261.70	1263.19	1264.68	1266.17	1267.66	1269.14	1270.63	1272.12	1273.61	1275.09	27.54
37	1276.58	1278.07	1279.56	1281.05	1282.55	1284.17	1285.78	1287.39	1289.01	1290.62	1292.23	1293.85	27.67
38	1295.46	1297.07	1298.68	1300.30	1301.91	1303.52	1305.14	1306.75	1308.36	1309.98	1311.59	1313.20	27.82
39	1314.81	1316.43	1318.04	1319.65	1321.28	1323.00	1324.71	1326.43	1328.14	1329.85	1331.57	1333.28	27.98
40	1335.00	1336.71	1338.43	1340.14	1341.85	1343.57	1345.28	1347.00	1348.71	1350.43	1352.14	1353.85	28.15
41	1355.57	1357.28	1359.00	1360.71	1362.44	1364.23	1366.03	1367.82	1369.62	1371.41	1373.21	1375.00	28.34
42	1376.80	1378.59	1380.39	1382.18	1383.98	1385.77	1387.57	1389.36	1391.16	1392.95	1394.75	1396.54	28.55
43	1398.34	1400.13	1401.93	1403.72	1405.53	1407.39	1409.25	1411.11	1412.97	1414.83	1416.70	1418.56	28.77
44	1420.42	1422.28	1424.14	1426.00	1427.86	1429.72	1431.58	1433.44	1435.31	1437.17	1439.03	1440.89	29.00
45	1442.75	1444.61	1446.47	1448.33	1450.20	1452.12	1454.04	1455.95	1457.87	1459.79	1461.70	1463.62	29.25
46	1465.54	1467.45	1469.37	1471.28	1473.20	1475.12	1477.03	1478.95	1480.87	1482.78	1484.70	1486.62	29.50
47	1488.53	1490.45	1492.37	1494.28	1496.21	1498.17	1500.13	1502.10	1504.06	1506.02	1507.99	1509.95	29.77

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1511.91	1513.88	1515.84	1517.80	1519.76	1521.73	1523.69	1525.65	1527.62	1529.58	1531.54	1533.51	30.05
49	1535.47	1537.43	1539.40	1541.36	1543.23	1544.65	1546.08	1547.50	1548.92	1550.34	1551.77	1553.19	30.33
50	1554.61	1556.04	1557.46	1558.88	1560.31	1561.73	1563.15	1564.58	1566.00	1567.42	1568.85	1570.27	30.57
51	1571.69	1573.11	1574.54	1575.96	1577.37	1578.68	1580.00	1581.31	1582.63	1583.95	1585.26	1586.58	30.79
52	1587.90	1589.21	1590.53	1591.84	1593.16	1594.48	1595.79	1597.11	1598.42	1599.74	1601.06	1602.37	31.00
53	1603.69	1605.01	1606.32	1607.64	1608.96	1610.31	1611.65	1613.00	1614.35	1615.70	1617.04	1618.39	31.22
54	1619.74	1621.09	1622.43	1623.78	1625.13	1626.47	1627.82	1629.17	1630.52	1631.86	1633.21	1634.56	31.44
55	1635.91	1637.25	1638.60	1639.95	1641.30	1642.68	1644.05	1645.43	1646.80	1648.18	1649.55	1650.93	31.67
56	1652.30	1653.68	1655.05	1656.43	1657.80	1659.18	1660.55	1661.93	1663.30	1664.68	1666.05	1667.43	31.91
57	1668.80	1670.18	1671.55	1672.93	1674.30	1675.71	1677.11	1678.51	1679.91	1681.31	1682.71	1684.11	32.15
58	1685.51	1686.91	1688.31	1689.72	1691.12	1692.52	1693.92	1695.32	1696.72	1698.12	1699.52	1700.92	32.41
59	1702.33	1703.73	1705.13	1706.53	1707.76	1708.20	1708.64	1709.08	1709.53	1709.97	1710.41	1710.85	32.67
60	1711.29	1711.73	1712.17	1712.61	1713.06	1713.50	1713.94	1714.38	1714.82	1715.26	1715.70	1716.15	32.81
61	1716.59	1717.03	1717.47										32.89

TANK 100 PERCENT FULL SOUNDING = 61 FT. 2 6/8 IN CAP. = 1717.85 S.W.LTON VCG = 32.91 FT.ABV.B.L.

LOWEST POINT OF TANK 0.782 FT. ABV. B.L. STRIKING PLATE 0.193 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 65.233 FT.

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.22	0.32	0.43	0.53	0.64	0.75	0.85	0.96	1.06	1.17	1.27	1.38	14.60
1	1.48	1.59	1.69	1.80	1.90	2.01	2.11	2.22	2.32	2.43	2.57	3.12	15.28
2	3.67	4.22	4.77	5.32	5.87	6.41	6.96	7.51	8.06	8.61	9.16	9.71	15.97
3	10.26	10.81	11.36	11.91	12.46	13.01	13.55	14.10	14.65	15.20	15.81	17.03	16.71
4	18.25	19.48	20.70	21.92	23.15	24.37	25.59	26.81	28.04	29.26	30.48	31.71	17.44
5	32.93	34.15	35.38	36.60	37.82	39.05	40.27	41.49	42.71	43.94	45.23	47.28	18.17
6	49.33	51.38	53.43	55.49	57.54	59.59	61.64	63.69	65.74	67.79	69.85	71.90	18.90
7	73.95	76.00	78.05	80.10	82.15	84.20	86.25	88.31	90.36	92.41	94.54	97.56	19.62
8	100.58	103.60	106.62	109.64	112.66	115.68	118.70	121.72	124.74	127.76	130.78	133.80	20.35
9	136.82	139.84	142.87	145.89	148.91	151.93	154.95	157.97	160.99	164.01	167.12	171.23	21.06
10	175.34	179.45	183.56	187.67	191.78	195.89	200.00	204.11	208.22	212.33	216.44	220.55	21.78
11	224.66	228.77	232.88	236.99	241.10	245.21	249.32	253.43	257.53	261.64	265.83	270.83	22.50
12	275.84	280.84	285.85	290.85	295.86	300.86	305.87	310.87	315.88	320.88	325.89	330.89	23.22
13	335.90	340.90	345.91	350.91	355.92	360.92	365.93	370.93	375.94	380.94	385.99	391.48	23.90
14	396.98	402.47	407.96	413.46	418.95	424.44	429.94	435.43	440.92	446.42	451.91	457.40	24.58
15	462.90	468.39	473.88	479.38	484.87	490.36	495.86	501.35	506.84	512.34	517.86	523.67	25.22

TANK 100 PERCENT FULL SOUNDING = 45 FT. 7 INCHES CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.486 FT. ABV. B.L. STRIKING PLATE 0.174 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	277299	277824	278350	278876	279402	279928	280453	280979	281505	282031	282557	283082	31.24
33	283608	284134	284660	285186	285712	286237	286763	287289	287815	288341	288863	289352	31.60
34	289840	290328	290817	291305	291793	292281	292770	293258	293746	294235	294723	295211	31.95
35	295700	296188	296676	297165	297653	298141	298630	299118	299606	300094	300571	300918	32.29
36	301264	301611	301957	302304	302650	302997	303343	303690	304036	304383	304729	305076	32.62
37	305422	305769	306115	306462	306808	307155	307502	307848	308195	308541	308888	309243	32.88
38	309599	309954	310309	310664	311019	311374	311729	312084	312440	312795	313150	313505	33.13
39	313860	314215	314570	314926	315281	315636	315991	316346	316701	317056	317412	317775	33.41
40	318138	318501	318863	319226	319589	319952	320315	320678	321041	321403	321766	322129	33.68
41	322492	322855	323218	323581	323943	324306	324669	325032	325395	325758	326121	326491	33.98
42	326861	327230	327600	327970	328340	328710	329079	329449	329819	330189	330559	330928	34.27
43	331298	331668	332038	332407	332777	333147	333517	333887	334256	334626	334994	335343	34.58
44	335691	336040	336388	336737	337085	337434	337782	338131	338479	338828	339176	339525	34.89
45	339874	340222	340571	340919	341268	341616	341965	342313					35.18

TANK 100 PERCENT FULL SOUNDING = 45 FT. 7 INCHES CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.486 FT. ABV. B.L. STRIKING PLATE 0.174 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 3 OF 3

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	138639	140161	141684	143207	144730	146252	147775	149298	150821	152344	153866	155389	25.86
17	156912	158435	159958	161481	163003	164526	166049	167572	169094	170617	172145	173730	26.47
18	175315	176900	178485	180070	181655	183240	184825	186410	187995	189580	191165	192750	27.07
19	194335	195920	197505	199090	200675	202260	203845	205430	207015	208600	210086	210480	27.66
20	210875	211269	211663	212057	212451	212846	213240	213634	214028	214422	214817	215211	28.18
21	215605	215999	216393	216788	217182	217576	217970	218364	218759	219153	219549	219973	28.34
22	220396	220819	221242	221665	222089	222512	222935	223358	223781	224205	224628	225051	28.50
23	225474	225897	226320	226744	227167	227590	228013	228436	228860	229283	229709	230161	28.70
24	230615	231068	231520	231974	232426	232879	233333	233785	234238	234692	235144	235597	28.91
25	236050	236503	236956	237409	237862	238315	238768	239221	239674	240127	240582	241059	29.15
26	241536	242013	242490	242967	243444	243921	244398	244875	245352	245829	246306	246783	29.40
27	247260	247737	248214	248691	249168	249645	250122	250599	251076	251553	252032	252528	29.67
28	253025	253521	254017	254514	255010	255507	256003	256499	256996	257492	257989	258485	29.95
29	258981	259478	259974	260471	260967	261463	261960	262456	262953	263449	263947	264459	30.26
30	264972	265484	265997	266509	267022	267534	268047	268559	269071	269584	270096	270609	30.57
31	271121	271634	272146	272659	273171	273683	274196	274708	275221	275733	276247	276773	30.90

TANK 100 PERCENT FULL SOUNDING = 45 FT. 7 INCHES CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.486 FT. ABV. B.L. STRIKING PLATE 0.174 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	57	85	112	140	168	195	223	250	278	305	333	360	14.60
1	388	415	443	471	498	526	553	581	608	636	673	817	15.28
2	961	1104	1248	1392	1536	1680	1823	1967	2111	2255	2399	2542	15.97
3	2686	2830	2974	3118	3261	3405	3549	3693	3837	3980	4139	4459	16.71
4	4779	5100	5420	5740	6060	6381	6701	7021	7341	7662	7982	8302	17.44
5	8622	8943	9263	9583	9903	10224	10544	10864	11184	11504	11843	12380	18.17
6	12917	13454	13991	14528	15065	15602	16139	16677	17214	17751	18288	18825	18.90
7	19362	19899	20436	20973	21510	22048	22585	23122	23659	24196	24754	25545	19.62
8	26336	27127	27917	28708	29499	30290	31081	31871	32662	33453	34244	35035	20.35
9	35825	36616	37407	38198	38989	39780	40570	41361	42152	42943	43757	44833	21.06
10	45909	46986	48062	49138	50214	51290	52366	53442	54518	55594	56671	57747	21.78
11	58823	59899	60975	62051	63127	64203	65279	66356	67432	68508	69603	70914	22.50
12	72224	73535	74845	76156	77466	78777	80087	81398	82708	84018	85329	86640	23.22
13	87950	89261	90571	91881	93192	94502	95813	97123	98434	99744	101065	102504	23.90
14	103942	105381	106819	108257	109696	111134	112572	114011	115449	116887	118326	119764	24.58
15	121202	122641	124079	125517	126956	128394	129833	131271	132709	134148	135593	137116	25.22

TANK 100 PERCENT FULL SOUNDING = 45 FT. 7 INCHES CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.486 FT. ABV. B.L. STRIKING PLATE 0.174 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 1 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	529.49	535.30	541.12	546.94	552.75	558.57	564.38	570.20	576.01	581.83	587.65	593.46	25.86
17	599.28	605.09	610.91	616.73	622.54	628.36	634.17	639.99	645.80	651.62	657.46	663.51	26.47
18	669.56	675.62	681.67	687.72	693.78	699.83	705.88	711.94	717.99	724.04	730.10	736.15	27.07
19	742.20	748.26	754.31	760.36	766.42	772.47	778.52	784.58	790.63	796.68	802.36	803.87	27.66
20	805.37	806.88	808.38	809.89	811.39	812.90	814.41	815.91	817.42	818.92	820.43	821.93	28.18
21	823.44	824.94	826.45	827.96	829.46	830.97	832.47	833.98	835.48	836.99	838.50	840.12	28.34
22	841.74	843.35	844.97	846.58	848.20	849.82	851.43	853.05	854.67	856.28	857.90	859.51	28.50
23	861.13	862.75	864.36	865.98	867.60	869.21	870.83	872.44	874.06	875.68	877.30	879.03	28.70
24	880.76	882.49	884.22	885.95	887.68	889.41	891.14	892.87	894.60	896.33	898.06	899.79	28.91
25	901.52	903.25	904.98	906.71	908.44	910.17	911.90	913.63	915.36	917.09	918.83	920.65	29.15
26	922.48	924.30	926.12	927.94	929.76	931.58	933.41	935.23	937.05	938.87	940.69	942.51	29.40
27	944.34	946.16	947.98	949.80	951.62	953.44	955.27	957.09	958.91	960.73	962.56	964.46	29.67
28	966.35	968.25	970.14	972.04	973.93	975.83	977.73	979.62	981.52	983.41	985.31	987.21	29.95
29	989.10	991.00	992.89	994.79	996.69	998.58	1000.48	1002.37	1004.27	1006.16	1008.07	1010.02	30.26
30	1011.98	1013.94	1015.89	1017.85	1019.81	1021.77	1023.72	1025.68	1027.64	1029.59	1031.55	1033.51	30.57
31	1035.47	1037.42	1039.38	1041.34	1043.29	1045.25	1047.21	1049.17	1051.12	1053.08	1055.04	1057.05	30.90

TANK 100 PERCENT FULL SOUNDING = 45 FT. 7 INCHES CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.486 FT. ABV. B.L.

STRIKING PLATE 0.174 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 2 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	1059.06	1061.07	1063.07	1065.08	1067.09	1069.10	1071.11	1073.12	1075.12	1077.13	1079.14	1081.15	31.24
33	1083.16	1085.16	1087.17	1089.18	1091.19	1093.20	1095.21	1097.21	1099.22	1101.23	1103.23	1105.09	31.60
34	1106.96	1108.82	1110.69	1112.55	1114.42	1116.28	1118.15	1120.01	1121.88	1123.74	1125.61	1127.47	31.95
35	1129.34	1131.20	1133.07	1134.93	1136.80	1138.66	1140.53	1142.39	1144.26	1146.12	1147.94	1149.26	32.29
36	1150.59	1151.91	1153.23	1154.56	1155.88	1157.20	1158.53	1159.85	1161.17	1162.50	1163.82	1165.15	32.62
37	1166.47	1167.79	1169.12	1170.44	1171.76	1173.09	1174.41	1175.73	1177.06	1178.38	1179.71	1181.06	32.88
38	1182.42	1183.77	1185.13	1186.49	1187.84	1189.20	1190.56	1191.91	1193.27	1194.63	1195.98	1197.34	33.13
39	1198.69	1200.05	1201.41	1202.76	1204.12	1205.48	1206.83	1208.19	1209.54	1210.90	1212.26	1213.65	33.41
40	1215.03	1216.42	1217.80	1219.19	1220.57	1221.96	1223.35	1224.73	1226.12	1227.50	1228.89	1230.27	33.68
41	1231.66	1233.05	1234.43	1235.82	1237.20	1238.59	1239.98	1241.36	1242.75	1244.13	1245.52	1246.93	33.98
42	1248.35	1249.76	1251.17	1252.58	1253.99	1255.41	1256.82	1258.23	1259.64	1261.06	1262.47	1263.88	34.27
43	1265.29	1266.71	1268.12	1269.53	1270.94	1272.35	1273.77	1275.18	1276.59	1278.00	1279.41	1280.74	34.58
44	1282.07	1283.40	1284.73	1286.06	1287.40	1288.73	1290.06	1291.39	1292.72	1294.05	1295.38	1296.71	34.89
45	1298.04	1299.38	1300.71	1302.04	1303.37	1304.70	1306.03	1307.36					35.18

TANK 100 PERCENT FULL SOUNDING = 45 FT. 7 INCHES CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.486 FT. ABV. B.L.

STRIKING PLATE 0.174 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 3 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
C	41	60	80	99	119	138	157	177	196	215	235	254	14.60
1	273	293	312	332	351	431	546	661	776	891	1006	1121	15.25
2	1236	1351	1466	1581	1696	1811	1926	2041	2156	2271	2385	2500	15.97
3	2615	2730	2845	2960	3075	3299	3585	3871	4157	4443	4728	5014	16.73
4	5300	5586	5872	6158	6443	6729	7015	7301	7587	7873	8158	8444	17.48
5	8730	9016	9302	9587	9873	10299	10803	11307	11811	12315	12819	13323	18.23
6	13827	14331	14835	15339	15843	16347	16851	17355	17859	18363	18867	19371	18.97
7	19875	20379	20883	21367	21891	22560	23322	24084	24846	25608	26370	27133	19.71
8	27895	28657	29419	30181	30943	31705	32467	33230	33992	34754	35516	36278	20.44
9	37040	37803	38565	39327	40089	41039	42095	43151	44207	45263	46320	47376	21.18
10	48432	49488	50544	51600	52656	53712	54768	55824	56880	57936	58993	60049	21.91
11	61105	62161	63217	64273	65329	66540	67839	69138	70436	71735	73033	74332	22.64
12	75630	76929	78228	79526	80825	82123	83422	84720	86019	87317	88616	89915	23.36
13	91213	92512	93810	95109	96408	97790	99219	100649	102079	103508	104938	106368	24.05
14	107797	109227	110657	112086	113516	114946	116375	117805	119235	120664	122094	123524	24.72
15	124953	126383	127812	129242	130672	132157	133673	135189	136705	138221	139737	141254	25.37

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 3/8 IN CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.946 FT. ABV. B.L.

STRIKING PLATE 0.177 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 1 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	142770	144286	145802	147318	148834	150350	151866	153382	154898	156415	157931	159447	25.99
17	160963	162479	163995	165512	167028	168584	170164	171744	173324	174903	176483	178063	26.61
18	179643	181222	182802	184382	185961	187541	189121	190701	192280	193860	195440	197020	27.21
19	198599	200179	201759	203339	204918	205832	206369	206906	207443	207980	208517	209054	27.80
20	209591	210128	210665	211202	211740	212277	212814	213351	213888	214425	214962	215499	28.15
21	216036	216573	217110	217647	218184	218646	219066	219486	219906	220326	220745	221165	28.35
22	221585	222005	222425	222844	223264	223684	224104	224524	224943	225363	225783	226203	28.55
23	226622	227042	227462	227882	228302	228741	229191	229641	230092	230542	230992	231442	28.75
24	231893	232343	232793	233244	233694	234144	234594	235045	235495	235945	236395	236846	28.97
25	237296	237746	238197	238647	239097	239563	240038	240513	240987	241462	241937	242412	29.20
26	242886	243361	243836	244311	244785	245260	245735	246210	246685	247159	247634	248109	29.46
27	248584	249058	249533	250008	250483	250970	251465	251959	252454	252949	253443	253938	29.73
28	254432	254927	255421	255916	256411	256905	257400	257894	258389	258884	259378	259873	30.03
29	260367	260862	261357	261851	262346	262851	263362	263873	264383	264894	265405	265916	30.33
30	266427	266938	267449	267960	268471	268982	269493	270003	270514	271025	271536	272047	30.65
31	272558	273069	273580	274091	274601	275121	275646	276170	276695	277219	277744	278268	30.98

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 3/8 IN CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.946 FT. ABV. B.L.

STRIKING PLATE 0.177 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 2 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	278793	279317	279842	280366	280891	281415	281940	282464	282989	283513	284038	284562	31.33
33	285087	285611	286136	286660	287185	287698	288206	288714	289222	289730	290238	290746	31.68
34	291254	291762	292270	292778	293286	293794	294302	294810	295317	295825	296333	296841	32.04
35	297349	297857	298365	298873	299381	299785	300131	300476	300822	301167	301513	301859	32.39
36	302204	302550	302895	303241	303587	303932	304278	304623	304969	305315	305660	306006	32.68
37	306351	306697	307043	307388	307734	308085	308439	308794	309148	309502	309857	310211	32.93
38	310565	310920	311274	311628	311983	312337	312691	313046	313400	313754	314109	314463	33.20
39	314817	315172	315526	315880	316235	316594	316956	317318	317680	318042	318405	318767	33.47
40	319129	319491	319853	320215	320577	320940	321302	321664	322026	322388	322750	323113	33.75
41	323475	323837	324199	324561	324923	325290	325659	326028	326397	326767	327136	327505	34.04
42	327874	328243	328612	328982	329351	329720	330089	330458	330828	331197	331566	331935	34.34
43	332304	332673	333043	333412	333781	334120	334443	334765	335088	335410	335733	336055	34.65
44	336378	336700	337023	337345	337668	337990	338313	338635	338958	339280	339603	339925	34.94
45	340248	340570	340893	341215	341538	341860	342183						35.21

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 3/8 IN CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.946 FT. ABV. B.L.

STRIKING PLATE 0.177 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 3 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.16	0.23	0.30	0.38	0.45	0.53	0.60	0.67	0.75	0.82	0.90	0.97	14.60
1	1.04	1.12	1.19	1.27	1.34	1.65	2.09	2.53	2.96	3.40	3.84	4.28	15.25
2	4.72	5.16	5.60	6.04	6.48	6.92	7.35	7.79	8.23	8.67	9.11	9.55	15.97
3	9.99	10.43	10.87	11.31	11.74	12.60	13.69	14.78	15.88	16.97	18.06	19.15	16.73
4	20.24	21.33	22.43	23.52	24.61	25.70	26.79	27.88	28.98	30.07	31.16	32.25	17.48
5	33.34	34.43	35.52	36.62	37.71	39.33	41.26	43.18	45.11	47.03	48.96	50.88	18.23
6	52.81	54.73	56.66	58.58	60.51	62.43	64.36	66.28	68.21	70.13	72.06	73.98	18.97
7	75.91	77.83	79.76	81.68	83.61	86.16	89.07	91.98	94.89	97.80	100.71	103.62	19.71
8	106.54	109.45	112.36	115.27	118.18	121.09	124.00	126.91	129.82	132.73	135.64	138.55	20.44
9	141.46	144.38	147.29	150.20	153.11	156.74	160.77	164.80	168.84	172.87	176.90	180.94	21.18
10	184.97	189.00	193.04	197.07	201.10	205.14	209.17	213.20	217.24	221.27	225.30	229.34	21.91
11	233.37	237.41	241.44	245.47	249.51	254.13	259.09	264.05	269.01	273.97	278.93	283.89	22.64
12	288.85	293.81	298.77	303.73	308.69	313.64	318.60	323.56	328.52	333.48	338.44	343.40	23.36
13	348.36	353.32	358.28	363.24	368.20	373.48	378.94	384.40	389.86	395.32	400.78	406.24	24.05
14	411.70	417.16	422.62	428.08	433.54	439.00	444.46	449.92	455.38	460.84	466.30	471.76	24.72
15	477.22	482.68	488.14	493.60	499.06	504.73	510.52	516.31	522.10	527.89	533.69	539.48	25.37

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 3/8 IN CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.946 FT. ABV. B.L.

STRIKING PLATE 0.177 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 1 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	545.27	551.06	556.85	562.64	568.43	574.22	580.01	585.80	591.59	597.38	603.17	608.96	25.99
17	614.75	620.54	626.33	632.12	637.91	643.86	649.89	655.92	661.96	667.99	674.02	680.06	26.61
18	686.09	692.12	698.16	704.19	710.22	716.26	722.29	728.32	734.36	740.39	746.42	752.46	27.21
19	758.49	764.52	770.56	776.59	782.62	786.11	788.16	790.21	792.27	794.32	796.37	798.42	27.80
20	800.47	802.52	804.57	806.62	808.68	810.73	812.78	814.83	816.88	818.93	820.98	823.03	28.15
21	825.08	827.14	829.19	831.24	833.29	835.05	836.66	838.26	839.86	841.47	843.07	844.67	28.35
22	846.28	847.88	849.48	851.09	852.69	854.29	855.90	857.50	859.10	860.71	862.31	863.91	28.55
23	865.52	867.12	868.72	870.33	871.93	873.61	875.33	877.05	878.77	880.49	882.21	883.92	28.75
24	885.64	887.36	889.08	890.80	892.52	894.24	895.96	897.68	899.40	901.12	902.84	904.56	28.97
25	906.28	908.00	909.72	911.44	913.16	914.94	916.75	918.57	920.38	922.19	924.00	925.82	29.20
26	927.63	929.44	931.26	933.07	934.88	936.70	938.51	940.32	942.14	943.95	945.76	947.58	29.46
27	949.39	951.20	953.02	954.83	956.64	958.50	960.39	962.28	964.17	966.06	967.95	969.84	29.73
28	971.73	973.62	975.51	977.39	979.28	981.17	983.06	984.95	986.84	988.73	990.62	992.51	30.03
29	994.39	996.28	998.17	1000.06	1001.95	1003.88	1005.83	1007.78	1009.73	1011.68	1013.64	1015.59	30.33
30	1017.54	1019.49	1021.44	1023.39	1025.34	1027.29	1029.25	1031.20	1033.15	1035.10	1037.05	1039.00	30.65
31	1040.95	1042.90	1044.85	1046.81	1048.76	1050.74	1052.75	1054.75	1056.75	1058.75	1060.76	1062.76	30.98

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 3/8 IN CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.946 FT. ABV. B.L.

STRIKING PLATE 0.177 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 2 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	1064.76	1066.77	1068.77	1070.77	1072.78	1074.78	1076.78	1078.79	1080.79	1082.79	1084.80	1086.80	31.33
33	1088.80	1090.81	1092.81	1094.81	1096.81	1098.78	1100.72	1102.66	1104.60	1106.54	1108.48	1110.42	31.68
34	1112.36	1114.30	1116.24	1118.18	1120.12	1122.06	1124.00	1125.94	1127.88	1129.82	1131.76	1133.70	32.04
35	1135.64	1137.58	1139.52	1141.46	1143.40	1144.94	1146.26	1147.58	1148.90	1150.22	1151.54	1152.86	32.39
36	1154.18	1155.50	1156.82	1158.14	1159.46	1160.78	1162.10	1163.42	1164.74	1166.06	1167.38	1168.70	32.68
37	1170.02	1171.34	1172.66	1173.98	1175.30	1176.64	1177.99	1179.34	1180.70	1182.05	1183.40	1184.76	32.93
38	1186.11	1187.46	1188.82	1190.17	1191.52	1192.88	1194.23	1195.58	1196.94	1198.29	1199.64	1201.00	33.20
39	1202.35	1203.70	1205.06	1206.41	1207.76	1209.13	1210.52	1211.90	1213.28	1214.67	1216.05	1217.43	33.47
40	1218.82	1220.20	1221.58	1222.97	1224.35	1225.73	1227.12	1228.50	1229.88	1231.26	1232.65	1234.03	33.75
41	1235.41	1236.80	1238.18	1239.56	1240.95	1242.35	1243.76	1245.17	1246.58	1247.99	1249.40	1250.81	34.04
42	1252.22	1253.63	1255.04	1256.45	1257.86	1259.27	1260.68	1262.09	1263.50	1264.91	1266.32	1267.73	34.34
43	1269.14	1270.55	1271.96	1273.37	1274.78	1276.07	1277.30	1278.54	1279.77	1281.00	1282.23	1283.46	34.65
44	1284.69	1285.93	1287.16	1288.39	1289.62	1290.85	1292.08	1293.32	1294.55	1295.78	1297.01	1298.24	34.94
45	1299.47	1300.71	1301.94	1303.17	1304.40	1305.63	1306.86						35.21

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 3/8 IN CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 14.946 FT. ABV. B.L.

STRIKING PLATE 0.177 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 3 OF 3

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 36

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	27	39	52	64	76	89	101	114	126	139	151	178	14.60
1	268	357	446	536	625	714	804	893	982	1072	1161	1250	15.24
2	1340	1429	1518	1608	1697	1786	1876	1965	2054	2144	2233	2354	16.01
3	2604	2855	3105	3355	3606	3856	4106	4357	4607	4857	5108	5358	16.78
4	5609	5859	6109	6360	6610	6860	7111	7361	7611	7862	8112	8405	17.54
5	8874	9344	9813	10282	10751	11220	11690	12159	12628	13097	13566	14035	18.29
6	14505	14974	15443	15912	16381	16851	17320	17789	18258	18727	19196	19717	19.05
7	20448	21180	21912	22643	23375	24106	24838	25570	26301	27033	27765	28496	19.80
8	29228	29959	30691	31422	32154	32886	33617	34349	35080	35812	36544	37335	20.55
9	38370	39405	40440	41474	42510	43545	44579	45615	46650	47684	48720	49755	21.30
10	50789	51825	52859	53894	54930	55964	56999	58035	59069	60104	61139	62224	22.05
11	63510	64796	66082	67368	68654	69940	71227	72513	73799	75085	76371	77657	22.79
12	78944	80230	81516	82802	84088	85374	86660	87947	89233	90519	91805	93118	23.51
13	94538	95959	97379	98800	100221	101641	103062	104483	105903	107324	108744	110165	24.21
14	111585	113006	114427	115847	117268	118688	120109	121530	122950	124371	125792	127229	24.87
15	128739	130248	131757	133266	134776	136285	137794	139304	140813	142322	143831	145341	25.52

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 1/8 IN CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 15.406 FT. ABV. B.L.

STRIKING PLATE 0.180 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	146850	148359	149868	151378	152887	154396	155905	157415	158924	160433	161942	163464	26.13
17	165039	166613	168187	169762	171336	172910	174485	176059	177633	179208	180782	182356	26.75
18	183930	185505	187079	188653	190228	191802	193376	194951	196525	198099	199673	201073	27.34
19	201753	202433	203112	203792	204472	205152	205832	206511	207191	207871	208551	209231	27.90
20	209910	210590	211270	211950	212630	213309	213989	214669	215349	216029	216708	217337	28.16
21	217753	218169	218585	219002	219418	219834	220251	220667	221083	221499	221916	222332	28.41
22	222748	223164	223581	223997	224413	224830	225246	225662	226078	226495	226911	227333	28.60
23	227781	228228	228676	229123	229571	230018	230466	230913	231361	231808	232256	232703	28.79
24	233151	233598	234045	234493	234940	235388	235835	236283	236730	237178	237625	238078	29.02
25	238550	239023	239495	239968	240440	240912	241385	241857	242330	242802	243275	243747	29.26
26	244220	244692	245165	245637	246110	246582	247055	247527	248000	248472	248945	249421	29.53
27	249914	250407	250899	251392	251885	252377	252870	253363	253856	254348	254841	255334	29.80
28	255827	256319	256812	257305	257797	258290	258783	259276	259768	260261	260754	261250	30.10
29	261759	262268	262778	263287	263796	264306	264815	265324	265833	266343	266852	267361	30.40
30	267871	268380	268889	269399	269908	270417	270927	271436	271945	272455	272964	273476	30.73
31	273999	274522	275045	275569	276092	276615	277138	277661	278184	278707	279231	279754	31.06

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 1/8 IN CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 15.406 FT. ABV. B.L.

STRIKING PLATE 0.180 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	280277	280800	281323	281846	282370	282893	283416	283939	284462	284985	285508	286031	31.41
33	286551	287071	287592	288112	288632	289152	289672	290193	290713	291233	291753	292273	31.76
34	292793	293314	293834	294354	294874	295394	295915	296435	296955	297475	297995	298483	32.13
35	298835	299187	299539	299891	300242	300594	300946	301298	301650	302002	302354	302706	32.48
36	303058	303410	303762	304114	304466	304818	305170	305522	305874	306226	306578	306930	32.73
37	307284	307637	307991	308344	308698	309051	309405	309758	310112	310465	310819	311172	32.99
38	311526	311879	312233	312586	312940	313293	313647	314000	314354	314708	315061	315416	33.26
39	315778	316139	316500	316862	317223	317585	317946	318308	318669	319030	319392	319753	33.53
40	320115	320476	320838	321199	321561	321922	322283	322645	323006	323368	323729	324092	33.82
41	324461	324829	325198	325566	325935	326303	326672	327040	327409	327777	328146	328515	34.11
42	328883	329252	329620	329989	330357	330726	331094	331463	331832	332200	332569	332924	34.41
43	333226	333529	333831	334133	334435	334737	335039	335342	335644	335946	336248	336550	34.71
44	336852	337155	337457	337759	338061	338363	338665	338968	339270	339572	339874	340176	34.97
45	340479	340781	341083	341385	341687	341989	342292						35.23

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 1/8 IN CAP. = 342341.19 GALLONS VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 15.406 FT. ABV. B.L.

STRIKING PLATE 0.180 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.10	0.15	0.20	0.24	0.29	0.34	0.39	0.43	0.48	0.53	0.58	0.68	14.60
1	1.02	1.36	1.71	2.05	2.39	2.73	3.07	3.41	3.75	4.09	4.43	4.78	15.24
2	5.12	5.46	5.80	6.14	6.48	6.82	7.16	7.50	7.85	8.19	8.53	8.99	16.01
3	9.95	10.90	11.86	12.81	13.77	14.73	15.68	16.64	17.60	18.55	19.51	20.46	16.78
4	21.42	22.38	23.33	24.29	25.24	26.20	27.16	28.11	29.07	30.03	30.98	32.10	17.54
5	33.89	35.69	37.48	39.27	41.06	42.85	44.64	46.44	48.23	50.02	51.81	53.60	18.29
6	55.40	57.19	58.98	60.77	62.56	64.36	66.15	67.94	69.73	71.52	73.31	75.30	19.05
7	78.10	80.89	83.69	86.48	89.27	92.07	94.86	97.66	100.45	103.24	106.04	108.83	19.80
8	111.63	114.42	117.21	120.01	122.80	125.60	128.39	131.19	133.98	136.77	139.57	142.59	20.55
9	146.54	150.49	154.45	158.40	162.35	166.31	170.26	174.21	178.16	182.12	186.07	190.02	21.30
10	193.97	197.93	201.88	205.83	209.79	213.74	217.69	221.65	225.60	229.55	233.50	237.64	22.05
11	242.56	247.47	252.38	257.29	262.20	267.12	272.03	276.94	281.85	286.76	291.68	296.59	22.79
12	301.50	306.41	311.33	316.24	321.15	326.06	330.97	335.89	340.80	345.71	350.62	355.63	23.51
13	361.06	366.49	371.91	377.34	382.76	388.19	393.61	399.04	404.46	409.89	415.32	420.74	24.21
14	426.17	431.59	437.02	442.44	447.87	453.29	458.72	464.15	469.57	475.00	480.42	485.91	24.87
15	491.68	497.44	503.21	508.97	514.74	520.50	526.26	532.03	537.79	543.56	549.32	555.08	25.52

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 1/8 IN CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 15.406 FT. ABV. B.L.

STRIKING PLATE 0.180 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	126892	127746	128600	129455	130309	131163	132018	132872	133726	134581	135435	136289	36.19
17	137144	137998	138866	139734	140602	141469	142337	143205	144072	144940	145808	146676	36.73
18	147543	148411	149279	150147	151014	151882	152750	153618	154485	155353	156221	157088	37.27
19	157956	158824	159702	160580	161457	162335	163212	164090	164967	165845	166722	167600	37.81
20	168478	169355	170233	171110	171988	172865	173743	174621	175498	176376	177253	178131	38.35
21	179008	179886	180771	181656	182541	183426	184311	185195	186080	186965	187850	188735	38.88
22	189620	190505	191389	192274	193159	194044	194929	195814	196699	197584	198468	199353	39.41
23	200238												39.95

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201087.75 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1068	1165	1261	1358	1455	1552	1648	1745	1842	1939	2035	2132	26.68
1	2229	2337	2700	3063	3426	3790	4153	4516	4879	5243	5606	5969	27.43
2	6332	6696	7059	7422	7785	8149	8512	8875	9238	9602	9965	10328	28.07
3	10691	11064	11640	12217	12793	13370	13946	14523	15099	15676	16253	16829	28.72
4	17406	17982	18559	19135	19712	20288	20865	21442	22018	22595	23171	23748	29.35
5	24324	24905	25587	26269	26951	27632	28314	28996	29678	30360	31041	31723	29.98
6	32405	33087	33769	34450	35132	35814	36496	37178	37859	38541	39223	39905	30.58
7	40586	41271	42013	42756	43498	44241	44983	45726	46468	47211	47953	48696	31.17
8	49438	50181	50923	51665	52408	53150	53893	54635	55378	56120	56863	57605	31.74
9	58348	59092	59875	60659	61442	62225	63009	63792	64575	65359	66142	66925	32.32
10	67709	68492	69275	70059	70842	71625	72409	73192	73975	74759	75542	76325	32.88
11	77109	77893	78706	79518	80331	81143	81956	82769	83581	84394	85206	86019	33.44
12	86832	87644	88457	89269	90082	90895	91707	92520	93332	94145	94958	95770	33.99
13	96583	97396	98234	99071	99909	100746	101583	102421	103258	104095	104933	105770	34.55
14	106608	107445	108282	109120	109957	110794	111632	112469	113307	114144	114981	115819	35.09
15	116656	117494	118349	119203	120057	120911	121766	122620	123474	124329	125183	126037	35.64

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201087.75 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	1070.43	1072.43	1074.43	1076.43	1078.43	1080.42	1082.42	1084.42	1086.42	1088.42	1090.41	1092.41	31.41
33	1094.40	1096.38	1098.37	1100.36	1102.34	1104.33	1106.32	1108.30	1110.29	1112.28	1114.26	1116.25	31.76
34	1118.24	1120.22	1122.21	1124.20	1126.18	1128.17	1130.16	1132.14	1134.13	1136.12	1138.10	1139.96	32.13
35	1141.31	1142.65	1144.00	1145.34	1146.69	1148.03	1149.37	1150.72	1152.06	1153.41	1154.75	1156.10	32.48
36	1157.44	1158.78	1160.13	1161.47	1162.82	1164.16	1165.51	1166.85	1168.19	1169.54	1170.88	1172.23	32.73
37	1173.58	1174.93	1176.28	1177.63	1178.98	1180.33	1181.68	1183.03	1184.38	1185.73	1187.08	1188.43	32.99
38	1189.78	1191.13	1192.48	1193.83	1195.18	1196.53	1197.88	1199.23	1200.58	1201.93	1203.28	1204.64	33.26
39	1206.02	1207.40	1208.78	1210.16	1211.54	1212.92	1214.30	1215.68	1217.06	1218.44	1219.82	1221.20	33.53
40	1222.58	1223.96	1225.34	1226.72	1228.10	1229.48	1230.86	1232.24	1233.63	1235.01	1236.39	1237.77	33.82
41	1239.18	1240.59	1241.99	1243.40	1244.81	1246.22	1247.62	1249.03	1250.44	1251.85	1253.25	1254.66	34.11
42	1256.07	1257.48	1258.89	1260.29	1261.70	1263.11	1264.52	1265.92	1267.33	1268.74	1270.15	1271.50	34.41
43	1272.66	1273.81	1274.97	1276.12	1277.27	1278.43	1279.58	1280.74	1281.89	1283.04	1284.20	1285.35	34.71
44	1286.51	1287.66	1288.81	1289.97	1291.12	1292.28	1293.43	1294.58	1295.74	1296.89	1298.05	1299.20	34.97
45	1300.35	1301.51	1302.66	1303.82	1304.97	1306.13	1307.28						35.23

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 1/8 IN CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 15.406 FT. ABV. B.L.

STRIKING PLATE 0.180 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#7 SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 101-121 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	560.85	566.61	572.38	578.14	583.91	589.67	595.43	601.20	606.96	612.73	618.49	624.30	26.13
17	630.32	636.33	642.34	648.35	654.37	660.38	666.39	672.40	678.42	684.43	690.44	696.45	26.75
18	702.47	708.48	714.49	720.50	726.52	732.53	738.54	744.55	750.57	756.58	762.59	767.94	27.34
19	770.53	773.13	775.73	778.32	780.92	783.51	786.11	788.71	791.30	793.90	796.50	799.09	27.90
20	801.69	804.29	806.88	809.48	812.07	814.67	817.27	819.86	822.46	825.06	827.65	830.05	28.16
21	831.64	833.23	834.82	836.41	838.00	839.59	841.18	842.77	844.36	845.95	847.54	849.13	28.41
22	850.72	852.31	853.90	855.49	857.08	858.67	860.26	861.85	863.44	865.03	866.62	868.23	28.60
23	869.94	871.65	873.36	875.07	876.78	878.48	880.19	881.90	883.61	885.32	887.03	888.74	28.79
24	890.45	892.16	893.87	895.57	897.28	898.99	900.70	902.41	904.12	905.83	907.54	909.27	29.02
25	911.07	912.87	914.68	916.48	918.29	920.09	921.90	923.70	925.51	927.31	929.12	930.92	29.26
26	932.72	934.53	936.33	938.14	939.94	941.75	943.55	945.36	947.16	948.96	950.77	952.59	29.53
27	954.47	956.35	958.23	960.12	962.00	963.88	965.76	967.64	969.52	971.41	973.29	975.17	29.80
28	977.05	978.93	980.82	982.70	984.58	986.46	988.34	990.22	992.11	993.99	995.87	997.76	30.10
29	999.71	1001.65	1003.60	1005.55	1007.49	1009.44	1011.38	1013.33	1015.27	1017.22	1019.16	1021.11	30.40
30	1023.05	1025.00	1026.94	1028.89	1030.83	1032.78	1034.72	1036.67	1038.61	1040.56	1042.50	1044.46	30.73
31	1046.46	1048.45	1050.45	1052.45	1054.45	1056.45	1058.45	1060.44	1062.44	1064.44	1066.44	1068.44	31.06

TANK 100 PERCENT FULL SOUNDING = 45 FT. 6 1/8 IN CAP. = 1307.47 S.W.LTON VCG = 35.36 FT.ABV.B.L.

LOWEST POINT OF TANK 15.406 FT. ABV. B.L.

STRIKING PLATE 0.180 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 50.340 FT.

SHEET 2 OF 3

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 37

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4.08	4.45	4.82	5.19	5.56	5.93	6.30	6.66	7.03	7.40	7.77	8.14	26.68
1	8.51	8.92	10.31	11.70	13.09	14.47	15.86	17.25	18.64	20.02	21.41	22.80	27.43
2	24.18	25.57	26.96	28.35	29.73	31.12	32.51	33.90	35.28	36.67	38.06	39.44	28.07
3	40.83	42.25	44.46	46.66	48.86	51.06	53.26	55.47	57.67	59.87	62.07	64.27	28.72
4	66.48	68.68	70.88	73.08	75.28	77.49	79.69	81.89	84.09	86.29	88.50	90.70	29.35
5	92.90	95.12	97.72	100.33	102.93	105.53	108.14	110.74	113.35	115.95	118.55	121.16	29.98
6	123.76	126.36	128.97	131.57	134.18	136.78	139.38	141.99	144.59	147.20	149.80	152.40	30.58
7	155.01	157.62	160.46	163.29	166.13	168.96	171.80	174.64	177.47	180.31	183.14	185.98	31.17
8	188.81	191.65	194.48	197.32	200.16	202.99	205.83	208.66	211.50	214.33	217.17	220.01	31.74
9	222.84	225.68	228.68	231.67	234.66	237.65	240.64	243.63	246.63	249.62	252.61	255.60	32.32
10	258.59	261.58	264.58	267.57	270.56	273.55	276.54	279.53	282.53	285.52	288.51	291.50	32.88
11	294.49	297.49	300.59	303.70	306.80	309.90	313.01	316.11	319.21	322.32	325.42	328.52	33.44
12	331.63	334.73	337.83	340.94	344.04	347.14	350.25	353.35	356.45	359.56	362.66	365.77	33.99
13	368.87	371.98	375.17	378.37	381.57	384.77	387.97	391.16	394.36	397.56	400.76	403.96	34.55
14	407.16	410.35	413.55	416.75	419.95	423.15	426.34	429.54	432.74	435.94	439.14	442.33	35.09
15	445.53	448.73	452.00	455.26	458.52	461.78	465.05	468.31	471.57	474.84	478.10	481.36	35.64

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 767.99 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 1 OF 2

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	484.62	487.89	491.15	494.41	497.68	500.94	504.20	507.46	510.73	513.99	517.25	520.52	36.19
17	523.78	527.04	530.36	533.67	536.99	540.30	543.61	546.93	550.24	553.56	556.87	560.18	36.73
18	563.50	566.81	570.13	573.44	576.75	580.07	583.38	586.70	590.01	593.32	596.64	599.95	37.27
19	603.27	606.58	609.93	613.29	616.64	619.99	623.34	626.69	630.04	633.39	636.75	640.10	37.81
20	643.45	646.80	650.15	653.50	656.86	660.21	663.56	666.91	670.26	673.61	676.97	680.32	38.35
21	683.67	687.02	690.40	693.78	697.16	700.54	703.92	707.30	710.68	714.06	717.44	720.82	38.88
22	724.20	727.57	730.95	734.33	737.71	741.09	744.47	747.85	751.23	754.61	757.99	761.37	39.41
23	764.75												39.95

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 767.99 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 2 OF 2

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	974	1063	1152	1241	1330	1419	1507	1596	1685	1774	1863	2055	26.71
1	2407	2758	3109	3460	3811	4162	4513	4864	5215	5566	5917	6268	27.47
2	6619	6971	7322	7673	8024	8375	8726	9077	9428	9779	10130	10568	28.12
3	11139	11710	12281	12853	13424	13995	14566	15137	15708	16279	16851	17422	28.76
4	17993	18564	19135	19706	20277	20848	21420	21991	22562	23133	23704	24318	29.40
5	24996	25675	26354	27032	27711	28389	29068	29747	30425	31104	31783	32461	30.04
6	33140	33818	34497	35176	35854	36533	37211	37890	38569	39247	39926	40629	30.63
7	41369	42109	42849	43589	44329	45069	45810	46550	47290	48030	48770	49510	31.22
8	50250	50990	51730	52470	53210	53951	54691	55431	56171	56911	57651	58408	31.80
9	59189	59971	60753	61535	62317	63098	63880	64662	65444	66226	67008	67789	32.37
10	68571	69353	70135	70917	71698	72480	73262	74044	74826	75608	76389	77183	32.93
11	77994	78806	79617	80429	81240	82051	82863	83674	84486	85297	86109	86920	33.49
12	87732	88543	89354	90166	90977	91789	92600	93412	94223	95035	95846	96667	34.04
13	97504	98340	99176	100013	100849	101686	102522	103358	104195	105031	105868	106704	34.60
14	107540	108377	109213	110050	110886	111722	112559	113395	114232	115068	115904	116748	35.15
15	117601	118455	119308	120162	121016	121869	122723	123577	124430	125284	126137	126991	35.69

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 1 OF 2

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	127845	128698	129552	130405	131259	132113	132966	133820	134673	135527	136381	137240	36.24
17	138107	138974	139841	140708	141576	142443	143310	144177	145044	145912	146779	147646	36.78
18	148513	149380	150247	151115	151982	152849	153716	154583	155450	156318	157185	158056	37.32
19	158933	159810	160687	161565	162442	163319	164196	165073	165950	166828	167705	168582	37.86
20	169459	170336	171213	172091	172968	173845	174722	175599	176476	177354	178231	179095	38.40
21	179939	180783	181628	182472	183316	184160	185004	185849	186693	187537	188381	189225	38.93
22	190070	190914	191758	192602	193447	194291	195135	195979	196823	197668	198512	199356	39.44
23	200200												
													39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 2 OF 2

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3.72	4.06	4.40	4.74	5.08	5.42	5.76	6.10	6.44	6.78	7.12	7.85	26.71
1	9.19	10.53	11.87	13.21	14.55	15.90	17.24	18.58	19.92	21.26	22.60	23.94	27.47
2	25.28	26.62	27.96	29.30	30.64	31.99	33.33	34.67	36.01	37.35	38.69	40.36	28.12
3	42.54	44.72	46.91	49.09	51.27	53.45	55.63	57.81	59.99	62.17	64.36	66.54	28.76
4	68.72	70.90	73.08	75.26	77.44	79.62	81.81	83.99	86.17	88.35	90.53	92.87	29.40
5	95.47	98.06	100.65	103.24	105.83	108.42	111.02	113.61	116.20	118.79	121.38	123.98	30.04
6	126.57	129.16	131.75	134.34	136.93	139.53	142.12	144.71	147.30	149.89	152.49	155.17	30.63
7	158.00	160.82	163.65	166.48	169.30	172.13	174.96	177.78	180.61	183.44	186.26	189.09	31.22
8	191.92	194.74	197.57	200.39	203.22	206.05	208.87	211.70	214.53	217.35	220.18	223.07	31.80
9	226.06	229.04	232.03	235.01	238.00	240.99	243.97	246.96	249.94	252.93	255.92	258.90	32.37
10	261.89	264.87	267.86	270.84	273.83	276.82	279.80	282.79	285.77	288.76	291.75	294.78	32.93
11	297.88	300.97	304.07	307.17	310.27	313.37	316.47	319.57	322.67	325.77	328.87	331.96	33.49
12	335.06	338.16	341.26	344.36	347.46	350.56	353.66	356.76	359.86	362.96	366.05	369.19	34.04
13	372.39	375.58	378.77	381.97	385.16	388.36	391.55	394.75	397.94	401.14	404.33	407.52	34.60
14	410.72	413.91	417.11	420.30	423.50	426.69	429.88	433.08	436.27	439.47	442.66	445.88	35.15
15	449.14	452.40	455.66	458.92	462.18	465.44	468.70	471.96	475.22	478.48	481.74	485.00	35.69

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 1 OF 2

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	488.26	491.52	494.78	498.04	501.30	504.56	507.82	511.08	514.34	517.60	520.86	524.15	36.24
17	527.46	530.77	534.08	537.39	540.71	544.02	547.33	550.64	553.95	557.27	560.58	563.89	36.78
18	567.20	570.51	573.82	577.14	580.45	583.76	587.07	590.38	593.70	597.01	600.32	603.65	37.32
19	607.00	610.35	613.70	617.05	620.40	623.75	627.10	630.45	633.80	637.15	640.50	643.85	37.86
20	647.20	650.55	653.90	657.25	660.60	663.95	667.30	670.65	674.00	677.35	680.70	684.00	38.40
21	687.22	690.45	693.67	696.90	700.12	703.34	706.57	709.79	713.02	716.24	719.47	722.69	38.93
22	725.91	729.14	732.36	735.59	738.81	742.03	745.26	748.48	751.71	754.93	758.16	761.38	39.44
23	764.60												39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 2 OF 2

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	933	1007	1082	1156	1231	1305	1379	1454	1528	1799	2137	2475	26.79
1	2813	3151	3489	3827	4165	4503	4841	5179	5517	5855	6193	6531	27.51
2	6869	7207	7545	7883	8221	8558	8896	9234	9572	10080	10646	11211	28.16
3	11777	12342	12908	13473	14039	14604	15170	15735	16301	16866	17432	17997	28.81
4	18563	19128	19694	20259	20825	21390	21956	22521	23087	23734	24409	25085	29.46
5	25760	26436	27111	27786	28462	29137	29812	30488	31163	31838	32514	33189	30.09
6	33864	34540	35215	35891	36566	37241	37917	38592	39267	39989	40727	41464	30.69
7	42202	42940	43677	44415	45153	45891	46628	47366	48104	48841	49579	50317	31.28
8	51054	51792	52530	53267	54005	54743	55480	56218	56956	57725	58506	59286	31.85
9	60066	60846	61627	62407	63187	63967	64748	65528	66308	67088	67869	68649	32.42
10	69429	70210	70990	71770	72550	73331	74111	74891	75671	76474	77284	78095	32.98
11	78905	79715	80525	81336	82146	82956	83767	84577	85387	86197	87008	87818	33.54
12	88628	89438	90249	91059	91869	92679	93490	94300	95110	95939	96775	97610	34.10
13	98445	99281	100116	100952	101787	102622	103458	104293	105129	105964	106799	107635	34.65
14	108470	109306	110141	110977	111812	112647	113483	114318	115153	116002	116855	117708	35.20
15	118561	119414	120266	121119	121972	122825	123678	124531	125384	126237	127090	127943	35.74

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 1 OF 2

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WATERMAN LASH

SOUNDING TABLE

AFT SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	128796	129648	130501	131354	132207	133060	133913	134766	135619	136482	137348	138215	36.29
17	139082	139948	140815	141682	142548	143415	144281	145148	146015	146881	147748	148614	36.83
18	149481	150348	151214	152081	152948	153814	154681	155547	156414	157288	158165	159042	37.37
19	159919	160795	161672	162549	163426	164302	165179	166056	166933	167809	168686	169563	37.91
20	170440	171316	172193	173070	173947	174823	175700	176577	177454	178281	179091	179902	38.45
21	180712	181522	182333	183143	183953	184764	185574	186384	187195	188005	188815	189626	38.97
22	190436	191246	192057	192867	193677	194488	195298	196108	196919	197729	198539	199350	39.46
23	200160	200970											
													39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000

SHEET 2 OF 2

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 38

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3.56	3.85	4.13	4.42	4.70	4.98	5.27	5.55	5.84	6.87	8.16	9.45	26.79
1	10.74	12.04	13.33	14.62	15.91	17.20	18.49	19.78	21.07	22.36	23.65	24.94	27.51
2	26.23	27.52	28.81	30.11	31.40	32.69	33.98	35.27	36.56	38.50	40.66	42.82	28.16
3	44.98	47.14	49.30	51.46	53.62	55.78	57.94	60.10	62.26	64.42	66.57	68.73	28.81
4	70.89	73.05	75.21	77.37	79.53	81.69	83.85	86.01	88.17	90.65	93.22	95.80	29.46
5	98.38	100.96	103.54	106.12	108.70	111.28	113.86	116.44	119.02	121.60	124.18	126.76	30.09
6	129.34	131.91	134.49	137.07	139.65	142.23	144.81	147.39	149.97	152.73	155.54	158.36	30.69
7	161.18	164.00	166.81	169.63	172.45	175.27	178.08	180.90	183.72	186.53	189.35	192.17	31.28
8	194.99	197.80	200.62	203.44	206.26	209.07	211.89	214.71	217.53	220.46	223.44	226.42	31.85
9	229.40	232.38	235.36	238.34	241.32	244.30	247.28	250.26	253.24	256.22	259.20	262.18	32.42
10	265.16	268.14	271.12	274.10	277.08	280.06	283.04	286.02	289.00	292.07	295.16	298.26	32.98
11	301.35	304.45	307.54	310.64	313.73	316.83	319.92	323.02	326.11	329.20	332.30	335.39	33.54
12	338.49	341.58	344.68	347.77	350.87	353.96	357.06	360.15	363.24	366.41	369.60	372.79	34.10
13	375.98	379.17	382.36	385.55	388.74	391.94	395.13	398.32	401.51	404.70	407.89	411.08	34.65
14	414.27	417.46	420.65	423.84	427.03	430.22	433.41	436.60	439.79	443.03	446.29	449.55	35.20
15	452.81	456.06	459.32	462.58	465.84	469.09	472.35	475.61	478.87	482.12	485.38	488.64	35.74

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 1 OF 2

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	491.90	495.15	498.41	501.67	504.93	508.18	511.44	514.70	517.95	521.25	524.56	527.87	36.29
17	531.18	534.49	537.80	541.11	544.42	547.73	551.04	554.35	557.66	560.97	564.28	567.59	36.83
18	570.90	574.21	577.52	580.83	584.14	587.45	590.76	594.07	597.38	600.72	604.06	607.41	37.37
19	610.76	614.11	617.46	620.81	624.15	627.50	630.85	634.20	637.55	640.90	644.25	647.59	37.91
20	650.94	654.29	657.64	660.99	664.34	667.69	671.03	674.38	677.73	680.89	683.98	687.08	38.45
21	690.17	693.27	696.36	699.46	702.55	705.65	708.74	711.84	714.93	718.03	721.12	724.22	38.97
22	727.31	730.41	733.50	736.60	739.69	742.79	745.88	748.98	752.07	755.17	758.26	761.36	39.46
23	764.45	767.55											39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 2 OF 2

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1068	1165	1261	1358	1455	1552	1648	1745	1842	1939	2035	2132	26.68
1	2229	2337	2700	3063	3426	3790	4153	4516	4879	5243	5606	5969	27.43
2	6332	6696	7059	7422	7785	8149	8512	8875	9238	9602	9965	10328	28.07
3	10691	11064	11640	12217	12793	13370	13946	14523	15099	15676	16253	16829	28.72
4	17406	17982	18559	19135	19712	20288	20865	21442	22018	22595	23171	23748	29.35
5	24324	24905	25587	26269	26951	27632	28314	28996	29678	30360	31041	31723	29.98
6	32405	33087	33769	34450	35132	35814	36496	37178	37859	38541	39223	39905	30.58
7	40586	41271	42013	42756	43498	44241	44983	45726	46468	47211	47953	48696	31.17
8	49438	50181	50923	51665	52408	53150	53893	54635	55378	56120	56863	57605	31.74
9	58348	59092	59875	60659	61442	62225	63009	63792	64575	65359	66142	66925	32.32
10	67709	68492	69275	70059	70842	71625	72409	73192	73975	74759	75542	76325	32.88
11	77109	77893	78706	79518	80331	81143	81956	82769	83581	84394	85206	86019	33.44
12	86832	87644	88457	89269	90082	90895	91707	92520	93332	94145	94958	95770	33.99
13	96583	97396	98234	99071	99909	100746	101583	102421	103258	104095	104933	105770	34.55
14	106608	107445	108282	109120	109957	110794	111632	112469	113307	114146	114981	115819	35.09
15	116656	117494	118349	119203	120057	120911	121766	122620	123474	124329	125183	126037	35.64

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201087.75 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 1 OF 2

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	126892	127746	128600	129455	130309	131163	132018	132872	133726	134581	135435	136289	36.19
17	137144	137998	138866	139734	140602	141469	142337	143205	144072	144940	145808	146676	36.73
18	147543	148411	149279	150147	151014	151882	152750	153618	154485	155353	156221	157088	37.27
19	157956	158824	159702	160580	161457	162335	163212	164090	164967	165845	166722	167600	37.81
20	168478	169355	170233	171110	171988	172865	173743	174621	175498	176376	177253	178131	38.35
21	179008	179886	180771	181656	182541	183426	184311	185195	186080	186965	187850	188735	38.88
22	189620	190505	191389	192274	193159	194044	194929	195814	196699	197584	198468	199353	39.41
23	200238												39.95

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201087.75 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 2 OF 2

301

SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4.08	4.45	4.82	5.19	5.56	5.93	6.30	6.66	7.03	7.40	7.77	8.14	26.68
1	8.51	8.92	10.31	11.70	13.09	14.47	15.86	17.25	18.64	20.02	21.41	22.80	27.43
2	24.18	25.57	26.96	28.35	29.73	31.12	32.51	33.90	35.28	36.67	38.06	39.44	28.07
3	40.83	42.25	44.46	46.66	48.86	51.06	53.26	55.47	57.67	59.87	62.07	64.27	28.72
4	66.48	68.68	70.88	73.08	75.28	77.49	79.69	81.89	84.09	86.29	88.50	90.70	29.35
5	92.90	95.12	97.72	100.33	102.93	105.53	108.14	110.74	113.35	115.95	118.55	121.16	29.98
6	123.76	126.36	128.97	131.57	134.18	136.78	139.38	141.99	144.59	147.20	149.80	152.40	30.58
7	155.01	157.62	160.46	163.29	166.13	168.96	171.80	174.64	177.47	180.31	183.14	185.98	31.17
8	188.81	191.65	194.48	197.32	200.16	202.99	205.83	208.66	211.50	214.33	217.17	220.01	31.74
9	222.84	225.68	228.68	231.67	234.66	237.65	240.64	243.63	246.63	249.62	252.61	255.60	32.32
10	258.59	261.58	264.58	267.57	270.56	273.55	276.54	279.53	282.53	285.52	288.51	291.50	32.88
11	294.49	297.49	300.59	303.70	306.80	309.90	313.01	316.11	319.21	322.32	325.42	328.52	33.44
12	331.63	334.73	337.83	340.94	344.04	347.14	350.25	353.35	356.45	359.56	362.66	365.77	33.99
13	368.87	371.98	375.17	378.37	381.57	384.77	387.97	391.16	394.36	397.56	400.76	403.96	34.55
14	407.16	410.35	413.55	416.75	419.95	423.15	426.34	429.54	432.74	435.94	439.14	442.33	35.09
15	445.53	448.73	452.00	455.26	458.52	461.78	465.05	468.31	471.57	474.84	478.10	481.36	35.64

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 767.99 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 1 OF 2

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	484.62	487.89	491.15	494.41	497.68	500.94	504.20	507.46	510.73	513.99	517.25	520.52	36.19
17	523.78	527.04	530.36	533.67	536.99	540.30	543.61	546.93	550.24	553.56	556.87	560.18	36.73
18	563.50	566.81	570.13	573.44	576.75	580.07	583.38	586.70	590.01	593.32	596.64	599.95	37.27
19	603.27	606.58	609.93	613.29	616.64	619.99	623.34	626.69	630.04	633.39	636.75	640.10	37.81
20	643.45	646.80	650.15	653.50	656.86	660.21	663.56	666.91	670.26	673.61	676.97	680.32	38.35
21	683.67	687.02	690.40	693.78	697.16	700.54	703.92	707.30	710.68	714.06	717.44	720.82	38.88
22	724.20	727.57	730.95	734.33	737.71	741.09	744.47	747.85	751.23	754.61	757.99	761.37	39.41
23	764.75												39.95

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 767.99 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.920 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 2 OF 2

303

SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	974	1063	1152	1241	1330	1419	1507	1596	1685	1774	1863	2055	26.71
1	2407	2758	3109	3460	3811	4162	4513	4864	5215	5566	5917	6268	27.47
2	6619	6971	7322	7673	8024	8375	8726	9077	9428	9779	10130	10568	28.12
3	11139	11710	12281	12853	13424	13995	14566	15137	15708	16279	16851	17422	28.76
4	17993	18564	19135	19706	20277	20848	21420	21991	22562	23133	23704	24318	29.40
5	24996	25675	26354	27032	27711	28389	29068	29747	30425	31104	31783	32461	30.04
6	33140	33818	34497	35176	35854	36533	37211	37890	38569	39247	39926	40629	30.63
7	41369	42109	42849	43589	44329	45069	45810	46550	47290	48030	48770	49510	31.22
8	50250	50990	51730	52470	53210	53951	54691	55431	56171	56911	57651	58408	31.80
9	59189	59971	60753	61535	62317	63098	63880	64662	65444	66226	67008	67789	32.37
10	68571	69353	70135	70917	71698	72480	73262	74044	74826	75608	76389	77183	32.93
11	77994	78806	79617	80429	81240	82051	82863	83674	84486	85297	86109	86920	33.49
12	87732	88543	89354	90166	90977	91789	92600	93412	94223	95035	95846	96667	34.04
13	97504	98340	99176	100013	100849	101686	102522	103358	104195	105031	105868	106704	34.60
14	107540	108377	109213	110050	110886	111722	112559	113395	114232	115068	115904	116748	35.15
15	117601	118455	119308	120162	121016	121869	122723	123577	124430	125284	126137	126991	35.69

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 1 OF 2

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	127845	128698	129552	130405	131259	132113	132966	133820	134673	135527	136381	137240	36.24
17	138107	138974	139841	140708	141576	142443	143310	144177	145044	145912	146779	147646	36.78
18	148513	149380	150247	151115	151982	152849	153716	154583	155450	156318	157185	158056	37.32
19	158933	159810	160687	161565	162442	163319	164196	165073	165950	166828	167705	168582	37.86
20	169459	170336	171213	172091	172968	173845	174722	175599	176476	177354	178231	179095	38.40
21	179939	180783	181628	182472	183316	184160	185004	185849	186693	187537	188381	189225	38.93
22	190070	190914	191758	192602	193447	194291	195135	195979	196823	197668	198512	199356	39.44
23	200200												39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

C7-1000 SHEET 2 OF 2

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 39

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3.72	4.06	4.40	4.74	5.08	5.42	5.76	6.10	6.44	6.78	7.12	7.85	26.71
1	9.19	10.53	11.87	13.21	14.55	15.90	17.24	18.58	19.92	21.26	22.60	23.94	27.47
2	25.28	26.62	27.96	29.30	30.64	31.99	33.33	34.67	36.01	37.35	38.69	40.36	28.12
3	42.54	44.72	46.91	49.09	51.27	53.45	55.63	57.81	59.99	62.17	64.36	66.54	28.76
4	68.72	70.90	73.08	75.26	77.44	79.62	81.81	83.99	86.17	88.35	90.53	92.87	29.40
5	95.47	98.06	100.65	103.24	105.83	108.42	111.02	113.61	116.20	118.79	121.38	123.98	30.04
6	126.57	129.16	131.75	134.34	136.93	139.53	142.12	144.71	147.30	149.89	152.49	155.17	30.63
7	158.00	160.82	163.65	166.48	169.30	172.13	174.96	177.78	180.61	183.44	186.26	189.09	31.22
8	191.92	194.74	197.57	200.39	203.22	206.05	208.87	211.70	214.53	217.35	220.18	223.07	31.80
9	226.06	229.04	232.03	235.01	238.00	240.99	243.97	246.96	249.94	252.93	255.92	258.90	32.37
10	261.89	264.87	267.86	270.84	273.83	276.82	279.80	282.79	285.77	288.76	291.75	294.78	32.93
11	297.88	300.97	304.07	307.17	310.27	313.37	316.47	319.57	322.67	325.77	328.87	331.96	33.49
12	335.06	338.16	341.26	344.36	347.46	350.56	353.66	356.76	359.86	362.96	366.05	369.19	34.04
13	372.39	375.58	378.77	381.97	385.16	388.36	391.55	394.75	397.94	401.14	404.33	407.52	34.60
14	410.72	413.91	417.11	420.30	423.50	426.69	429.88	433.08	436.27	439.47	442.66	445.88	35.15
15	449.14	452.40	455.66	458.92	462.18	465.44	468.70	471.96	475.22	478.48	481.74	485.00	35.69

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 1 OF 2

C7-1000

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	488.26	491.52	494.78	498.04	501.30	504.56	507.82	511.08	514.34	517.60	520.86	524.15	36.24
17	527.46	530.77	534.08	537.39	540.71	544.02	547.33	550.64	553.95	557.27	560.58	563.89	36.78
18	567.20	570.51	573.82	577.14	580.45	583.76	587.07	590.38	593.70	597.01	600.32	603.65	37.32
19	607.00	610.35	613.70	617.05	620.40	623.75	627.10	630.45	633.80	637.15	640.50	643.85	37.86
20	647.20	650.55	653.90	657.25	660.60	663.95	667.30	670.65	674.00	677.35	680.70	684.00	38.40
21	687.22	690.45	693.67	696.90	700.12	703.34	706.57	709.79	713.02	716.24	719.47	722.69	38.93
22	725.91	729.14	732.36	735.59	738.81	742.03	745.26	748.48	751.71	754.93	758.16	761.38	39.44
23	764.60												39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 INCHES CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.204 FT. ABV. B.L.

STRIKING PLATE 0.912 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 2 OF 2

C7-1000

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	933	1007	1082	1156	1231	1305	1379	1454	1528	1799	2137	2475	26.79
1	2813	3151	3489	3827	4165	4503	4841	5179	5517	5855	6193	6531	27.51
2	6869	7207	7545	7883	8221	8558	8896	9234	9572	10080	10646	11211	28.16
3	11777	12342	12908	13473	14039	14604	15170	15735	16301	16866	17432	17997	28.81
4	18563	19128	19694	20259	20825	21390	21956	22521	23087	23734	24409	25085	29.46
5	25760	26436	27111	27786	28462	29137	29812	30488	31163	31838	32514	33189	30.09
6	33864	34540	35215	35891	36566	37241	37917	38592	39267	39989	40727	41464	30.69
7	42202	42940	43677	44415	45153	45891	46628	47366	48104	48841	49579	50317	31.28
8	51054	51792	52530	53267	54005	54743	55480	56218	56956	57725	58506	59286	31.85
9	60066	60846	61627	62407	63187	63967	64748	65528	66308	67088	67869	68649	32.42
10	69429	70210	70990	71770	72550	73331	74111	74891	75671	76474	77284	78095	32.98
11	78905	79715	80525	81336	82146	82956	83767	84577	85387	86197	87008	87818	33.54
12	88628	89438	90249	91059	91869	92679	93490	94300	95110	95939	96775	97610	34.10
13	98445	99281	100116	100952	101787	102622	103458	104293	105129	105964	106799	107635	34.65
14	108470	109306	110141	110977	111812	112647	113483	114318	115153	116002	116855	117708	35.20
15	118561	119414	120266	121119	121972	122825	123678	124531	125384	126237	127090	127943	35.74

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 1 OF 2

C7-1000

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SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	128796	129648	130501	131354	132207	133060	133913	134766	135619	136482	137348	138215	36.29
17	139082	139948	140815	141682	142548	143415	144281	145148	146015	146881	147748	148614	36.83
18	149481	150348	151214	152081	152948	153814	154681	155547	156414	157288	158165	159042	37.37
19	159919	160795	161672	162549	163426	164302	165179	166056	166933	167809	168686	169563	37.91
20	170440	171316	172193	173070	173947	174823	175700	176577	177454	178281	179091	179902	38.45
21	180712	181522	182333	183143	183953	184764	185574	186384	187195	188005	188815	189626	38.97
22	190436	191246	192057	192867	193677	194488	195298	196108	196919	197729	198539	199350	39.46
23	200160	200970											39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 201089.69 GALLONS VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 2 OF 2

C7-1000

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SOUNDING TABLE

WATERMAN LASH

FUEL OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2245	2261	2277	2292	2308	2324	2340	2356	2371	2387	2403	2419	9.17
17	2435	2451	2466	2482	2498	2514	2530	2545	2561	2577	2593	2609	9.74
18	2625	2641	2658	2674	2691	2707	2724	2740	2756	2773	2789	2806	10.31
19	2822	2839	2855	2872	2888	2904	2921	2937	2954	2970	2987	3003	10.89
20	3020	3037	3054	3071	3088	3105	3122	3140	3157	3174	3191	3208	11.46
21	3225	3242	3259	3276	3293	3310	3327	3344	3362	3379	3396	3413	12.03
22	3430	3448	3466	3483	3501	3519	3537	3554	3572	3590	3607	3625	12.61
23	3643	3660	3678	3696	3714	3731	3749	3767	3784	3802	3820	3838	13.19
24	3856	3874	3892	3911	3929	3947	3966	3984	4002	4021	4039	4057	13.76
25	4076	4094	4112	4131	4149	4168	4186	4204	4223	4241	4259	4278	14.34
26	4296	4315	4334	4353	4372	4391	4410	4429	4448	4467	4486	4505	14.92
27	4524	4543	4562	4581	4600	4619	4638	4657	4676	4695	4714	4733	15.50
28	4753	4772	4792	4812	4831	4851	4871	4890	4910	4930	4949	4969	16.09
29	4989	5008	5028	5048	5067	5087	5107	5126	5146	5166	5185	5205	16.67
30	5225	5245	5266	5286	5306	5327	5347	5368	5388	5408	5429	5449	17.26
31	5469	5490	5510	5530	5551	5571	5591	5612	5632	5652	5673	5693	17.85

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 5 INCHES CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 3

C7-1000

311

SOUNDING TABLE

WATERMAN LASH

FUEL OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4	10	16	22	28	34	40	46	52	58	64	70	0.03
1	76	81	87	93	99	105	111	117	123	129	135	141	0.59
2	149	158	166	175	184	193	201	210	219	228	236	245	1.15
3	254	262	271	280	289	297	306	315	324	332	341	350	1.72
4	360	370	381	391	402	412	423	433	444	454	465	475	2.30
5	485	496	506	517	527	538	548	559	569	580	590	601	2.87
6	612	624	636	647	659	671	683	694	706	718	730	742	3.45
7	753	765	777	789	800	812	824	836	848	859	871	883	4.02
8	895	908	921	934	947	959	972	985	998	1011	1024	1036	4.60
9	1049	1062	1075	1088	1101	1113	1126	1139	1152	1165	1178	1190	5.17
10	1204	1218	1231	1245	1259	1272	1286	1300	1313	1327	1341	1355	5.74
11	1368	1382	1396	1409	1423	1437	1450	1464	1478	1492	1505	1519	6.32
12	1533	1548	1562	1577	1591	1606	1620	1634	1649	1663	1678	1692	6.89
13	1707	1721	1736	1750	1765	1779	1794	1808	1822	1837	1851	1866	7.46
14	1881	1896	1911	1926	1941	1957	1972	1987	2002	2017	2032	2048	8.03
15	2063	2078	2093	2108	2123	2138	2154	2169	2184	2199	2214	2229	8.60

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 5 INCHES CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 3

C7-1000

310

SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	491.90	495.15	498.41	501.67	504.93	508.18	511.44	514.70	517.95	521.25	524.56	527.87	36.29
17	531.18	534.49	537.80	541.11	544.42	547.73	551.04	554.35	557.66	560.97	564.28	567.59	36.83
18	570.90	574.21	577.52	580.83	584.14	587.45	590.76	594.07	597.38	600.72	604.06	607.41	37.37
19	610.76	614.11	617.46	620.81	624.15	627.50	630.85	634.20	637.55	640.90	644.25	647.59	37.91
20	650.94	654.29	657.64	660.99	664.34	667.69	671.03	674.38	677.73	680.89	683.98	687.08	38.45
21	690.17	693.27	696.36	699.46	702.55	705.65	708.74	711.84	714.93	718.03	721.12	724.22	38.97
22	727.31	730.41	733.50	736.60	739.69	742.79	745.88	748.98	752.07	755.17	758.26	761.36	39.46
23	764.45	767.55											39.94

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 2 OF 2

C7-1000

309

SOUNDING TABLE

WATERMAN LASH

AFT SW BALLAST TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 121-132 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3.56	3.85	4.13	4.42	4.70	4.98	5.27	5.55	5.84	6.87	8.16	9.45	26.79
1	10.74	12.04	13.33	14.62	15.91	17.20	18.49	19.78	21.07	22.36	23.65	24.94	27.51
2	26.23	27.52	28.81	30.11	31.40	32.69	33.98	35.27	36.56	38.50	40.66	42.82	28.16
3	44.98	47.14	49.30	51.46	53.62	55.78	57.94	60.10	62.26	64.42	66.57	68.73	28.81
4	70.89	73.05	75.21	77.37	79.53	81.69	83.85	86.01	88.17	90.65	93.22	95.80	29.46
5	98.38	100.96	103.54	106.12	108.70	111.28	113.86	116.44	119.02	121.60	124.18	126.76	30.09
6	129.34	131.91	134.49	137.07	139.65	142.23	144.81	147.39	149.97	152.73	155.54	158.36	30.69
7	161.18	164.00	166.81	169.63	172.45	175.27	178.08	180.90	183.72	186.53	189.35	192.17	31.28
8	194.99	197.80	200.62	203.44	206.26	209.07	211.89	214.71	217.53	220.46	223.44	226.42	31.85
9	229.40	232.38	235.36	238.34	241.32	244.30	247.28	250.26	253.24	256.22	259.20	262.18	32.42
10	265.16	268.14	271.12	274.10	277.08	280.06	283.04	286.02	289.00	292.07	295.16	298.26	32.98
11	301.35	304.45	307.54	310.64	313.73	316.83	319.92	323.02	326.11	329.20	332.30	335.39	33.54
12	338.49	341.58	344.68	347.77	350.87	353.96	357.06	360.15	363.24	366.41	369.60	372.79	34.10
13	375.98	379.17	382.36	385.55	388.74	391.94	395.13	398.32	401.51	404.70	407.89	411.08	34.65
14	414.27	417.46	420.65	423.84	427.03	430.22	433.41	436.60	439.79	443.03	446.29	449.55	35.20
15	452.81	456.06	459.32	462.58	465.84	469.09	472.35	475.61	478.87	482.12	485.38	488.64	35.74

TANK 100 PERCENT FULL SOUNDING = 23 FT. 1 1/8 IN CAP. = 768.00 S.W.LTON VCG = 39.99 FT.ABV.B.L.

LOWEST POINT OF TANK 26.268 FT. ABV. B.L.

STRIKING PLATE 1.044 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 34.080 FT.

SHEET 1 OF 2

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5714	5735	5756	5777	5798	5819	5840	5861	5882	5904	5925	5946	18.44
33	5967	5988	6009	6030	6051	6072	6093	6114	6135	6156	6177	6198	19.04
34	6220	6242	6264	6285	6307	6329	6351	6373	6394	6416	6438	6460	19.63
35	6481	6503	6525	6547	6569	6590	6612	6634	6656	6678	6699	6721	20.23

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 5 INCHES CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 3 OF 3

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.64	1.54	2.44	3.33	4.23	5.12	6.02	6.92	7.81	8.71	9.60	10.50	0.03
1	11.39	12.29	13.19	14.08	14.98	15.87	16.77	17.67	18.56	19.46	20.35	21.25	0.59
2	22.45	23.77	25.08	26.40	27.72	29.04	30.36	31.68	32.99	34.31	35.63	36.95	1.15
3	38.27	39.59	40.90	42.22	43.54	44.86	46.18	47.50	48.81	50.13	51.45	52.77	1.72
4	54.27	55.85	57.43	59.01	60.59	62.17	63.75	65.32	66.90	68.48	70.06	71.64	2.30
5	73.22	74.80	76.38	77.95	79.53	81.11	82.69	84.27	85.85	87.43	89.00	90.58	2.87
6	92.30	94.08	95.86	97.63	99.41	101.18	102.96	104.73	106.51	108.29	110.06	111.84	3.45
7	113.61	115.39	117.16	118.94	120.72	122.49	124.27	126.04	127.82	129.60	131.37	133.15	4.02
8	135.04	136.97	138.91	140.84	142.77	144.71	146.64	148.58	150.51	152.45	154.38	156.31	4.60
9	158.25	160.18	162.12	164.05	165.99	167.92	169.85	171.79	173.72	175.66	177.59	179.53	5.17
10	181.56	183.62	185.69	187.76	189.82	191.89	193.95	196.02	198.09	200.15	202.22	204.29	5.74
11	206.35	208.42	210.49	212.55	214.62	216.69	218.75	220.82	222.89	224.95	227.02	229.08	6.32
12	231.23	233.42	235.60	237.78	239.96	242.14	244.32	246.50	248.69	250.87	253.05	255.23	6.89
13	257.41	259.59	261.77	263.96	266.14	268.32	270.50	272.68	274.86	277.05	279.23	281.41	7.46
14	283.66	285.95	288.24	290.52	292.81	295.09	297.38	299.66	301.95	304.23	306.52	308.81	8.03
15	311.09	313.38	315.66	317.95	320.23	322.52	324.80	327.09	329.38	331.66	333.95	336.23	8.60

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 5 INCHES CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 1 OF 3

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	338.59	340.97	343.36	345.74	348.13	350.51	352.89	355.28	357.66	360.05	362.43	364.82	9.17
17	367.20	369.58	371.97	374.35	376.74	379.12	381.51	383.89	386.27	388.66	391.04	393.43	9.74
18	395.88	398.36	400.84	403.32	405.80	408.28	410.76	413.24	415.72	418.21	420.69	423.17	10.31
19	425.65	428.13	430.61	433.09	435.57	438.05	440.53	443.01	445.49	447.97	450.45	452.93	10.89
20	455.48	458.06	460.63	463.21	465.78	468.36	470.93	473.51	476.08	478.66	481.23	483.81	11.46
21	486.36	488.96	491.53	494.11	496.68	499.26	501.83	504.41	506.99	509.56	512.14	514.71	12.03
22	517.35	520.03	522.70	525.37	528.04	530.71	533.38	536.05	538.72	541.39	544.06	546.73	12.61
23	549.40	552.07	554.74	557.41	560.08	562.75	565.42	568.09	570.76	573.43	576.10	578.77	13.19
24	581.51	584.28	587.04	589.81	592.58	595.34	598.11	600.88	603.64	606.41	609.18	611.94	13.76
25	614.71	617.47	620.24	623.01	625.77	628.54	631.31	634.07	636.84	639.61	642.37	645.14	14.34
26	647.98	650.84	653.71	656.57	659.44	662.30	665.16	668.03	670.89	673.76	676.62	679.49	14.92
27	682.35	685.22	688.08	690.95	693.81	696.67	699.54	702.40	705.27	708.13	711.00	713.86	15.50
28	716.80	719.76	722.73	725.70	728.66	731.63	734.59	737.56	740.52	743.49	746.45	749.42	16.09
29	752.38	755.35	758.31	761.28	764.25	767.21	770.18	773.14	776.11	779.07	782.04	785.00	16.67
30	788.04	791.11	794.18	797.25	800.32	803.39	806.46	809.53	812.60	815.67	818.74	821.81	17.26
31	824.88	827.94	831.01	834.08	837.15	840.22	843.29	846.36	849.43	852.50	855.57	858.64	17.85

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 5 INCHES CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 2 OF 3

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	861.78	864.96	868.14	871.31	874.49	877.66	880.84	884.02	887.19	890.37	893.55	896.72	18.44
33	899.90	903.07	906.25	909.43	912.60	915.78	918.96	922.13	925.31	928.48	931.66	934.84	19.04
34	938.09	941.38	944.67	947.95	951.24	954.52	957.81	961.10	964.38	967.67	970.96	974.24	19.63
35	977.53	980.82	984.10	987.39	990.68	993.96	997.25	1000.53	1003.82	1007.11	1010.39	1013.68	20.23

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 5 INCHES CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 3 OF 3

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4	9	15	20	25	30	36	41	46	52	57	62	0.03
1	68	73	78	84	89	94	100	105	110	115	121	126	0.54
2	134	142	151	160	168	177	185	194	202	211	220	228	1.06
3	237	245	254	262	271	280	288	297	305	314	322	331	1.63
4	341	351	362	372	382	393	403	413	424	434	444	455	2.20
5	465	475	486	496	506	517	527	538	548	558	569	579	2.78
6	590	602	614	625	637	649	660	672	684	695	707	719	3.35
7	730	742	754	766	777	789	801	812	824	836	847	859	3.93
8	871	884	897	910	922	935	948	961	973	986	999	1012	4.50
9	1025	1037	1050	1063	1076	1088	1101	1114	1127	1139	1152	1165	5.08
10	1178	1192	1205	1219	1233	1246	1260	1274	1287	1301	1315	1328	5.65
11	1342	1356	1369	1383	1396	1410	1424	1437	1451	1465	1478	1492	6.22
12	1506	1521	1535	1549	1564	1578	1593	1607	1621	1636	1650	1665	6.80
13	1679	1693	1708	1722	1737	1751	1765	1780	1794	1809	1823	1837	7.37
14	1852	1867	1883	1898	1913	1928	1943	1958	1973	1988	2003	2018	7.94
15	2034	2049	2064	2079	2094	2109	2124	2139	2154	2169	2185	2200	8.51

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 8 7/8 IN CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 1 OF 3

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2215	2231	2247	2263	2278	2294	2310	2326	2341	2357	2373	2389	9.08
17	2404	2420	2436	2452	2467	2483	2499	2515	2530	2546	2562	2578	9.65
18	2594	2610	2627	2643	2659	2676	2692	2709	2725	2741	2758	2774	10.22
19	2791	2807	2823	2840	2856	2873	2889	2905	2922	2938	2954	2971	10.80
20	2988	3005	3022	3039	3056	3073	3090	3107	3124	3141	3158	3175	11.37
21	3192	3209	3226	3243	3260	3277	3294	3311	3328	3345	3362	3379	11.94
22	3397	3414	3432	3450	3467	3485	3503	3520	3538	3556	3573	3591	12.52
23	3608	3626	3644	3661	3679	3697	3714	3732	3750	3767	3785	3803	13.09
24	3821	3839	3857	3876	3894	3912	3930	3949	3967	3985	4004	4022	13.67
25	4040	4058	4077	4095	4113	4132	4150	4168	4186	4205	4223	4241	14.25
26	4260	4279	4298	4317	4336	4355	4374	4393	4411	4430	4449	4468	14.83
27	4487	4506	4525	4544	4563	4582	4601	4620	4639	4658	4677	4695	15.41
28	4715	4734	4754	4774	4793	4813	4832	4852	4872	4891	4911	4930	15.99
29	4950	4970	4989	5009	5028	5048	5068	5087	5107	5126	5146	5166	16.58
30	5186	5206	5226	5247	5267	5287	5308	5328	5348	5368	5389	5409	17.17
31	5429	5450	5470	5490	5510	5531	5551	5571	5592	5612	5632	5652	17.76

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 8 7/8 IN CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 2 OF 3

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5673	5694	5715	5736	5757	5778	5799	5820	5841	5862	5883	5904	18.35
33	5925	5946	5967	5988	6009	6030	6051	6072	6093	6114	6135	6156	18.94
34	6176	6196	6216	6236	6256	6276	6296	6316	6335	6355	6375	6395	19.53
35	6415	6435	6455	6475	6495	6515	6535	6555	6574	6594	6614	6634	20.08
36	6654	6674	6694	6714									20.63

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 8 7/8 IN CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 3 OF 3

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.59	1.39	2.19	3.00	3.80	4.60	5.40	6.20	7.00	7.80	8.60	9.40	0.03
1	10.20	11.01	11.81	12.61	13.41	14.21	15.01	15.81	16.61	17.41	18.21	19.02	0.54
2	20.18	21.47	22.77	24.06	25.35	26.64	27.94	29.23	30.52	31.82	33.11	34.40	1.06
3	35.70	36.99	38.28	39.57	40.87	42.16	43.45	44.75	46.04	47.33	48.62	49.92	1.63
4	51.41	52.97	54.53	56.09	57.65	59.21	60.77	62.34	63.90	65.46	67.02	68.58	2.20
5	70.14	71.70	73.26	74.82	76.38	77.94	79.51	81.07	82.63	84.19	85.75	87.31	2.78
6	89.02	90.78	92.54	94.31	96.07	97.83	99.59	101.36	103.12	104.88	106.64	108.41	3.35
7	110.17	111.93	113.69	115.45	117.22	118.98	120.74	122.50	124.27	126.03	127.79	129.55	3.93
8	131.43	133.36	135.28	137.20	139.13	141.05	142.97	144.90	146.82	148.74	150.67	152.59	4.50
9	154.51	156.44	158.36	160.29	162.21	164.13	166.06	167.98	169.90	171.83	173.75	175.67	5.08
10	177.69	179.75	181.81	183.87	185.92	187.98	190.04	192.09	194.15	196.21	198.26	200.32	5.65
11	202.38	204.44	206.49	208.55	210.61	212.66	214.72	216.78	218.84	220.89	222.95	225.01	6.22
12	227.15	229.32	231.50	233.67	235.84	238.01	240.19	242.36	244.53	246.71	248.88	251.05	6.80
13	253.22	255.40	257.57	259.74	261.92	264.09	266.26	268.43	270.61	272.78	274.95	277.13	7.37
14	279.38	281.65	283.93	286.21	288.49	290.76	293.04	295.32	297.60	299.87	302.15	304.43	7.94
15	306.71	308.98	311.26	313.54	315.81	318.09	320.37	322.65	324.92	327.20	329.48	331.76	8.51

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 8 7/8 IN CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

C7-1000 SHEET 1 OF 3

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 41

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	334.11	336.48	338.86	341.23	343.61	345.99	348.36	350.74	353.11	355.49	357.87	360.24	9.08
17	362.62	365.00	367.37	369.75	372.12	374.50	376.88	379.25	381.63	384.00	386.38	388.76	9.65
18	391.20	393.68	396.15	398.62	401.09	403.56	406.04	408.51	410.98	413.45	415.93	418.40	10.22
19	420.87	423.34	425.82	428.29	430.76	433.23	435.70	438.18	440.65	443.12	445.59	448.07	10.80
20	450.61	453.17	455.74	458.31	460.88	463.44	466.01	468.58	471.14	473.71	476.28	478.84	11.37
21	481.41	483.98	486.54	489.11	491.68	494.25	496.81	499.38	501.95	504.51	507.08	509.65	11.94
22	512.28	514.95	517.61	520.27	522.93	525.59	528.25	530.92	533.58	536.24	538.90	541.56	12.52
23	544.22	546.89	549.55	552.21	554.87	557.53	560.19	562.86	565.52	568.18	570.84	573.50	13.09
24	576.24	578.99	581.75	584.51	587.27	590.02	592.78	595.54	598.30	601.05	603.81	606.57	13.67
25	609.33	612.09	614.84	617.60	620.36	623.12	625.87	628.63	631.39	634.15	636.91	639.66	14.25
26	642.49	645.35	648.20	651.06	653.91	656.77	659.63	662.48	665.34	668.19	671.05	673.90	14.83
27	676.76	679.61	682.47	685.32	688.18	691.03	693.89	696.75	699.60	702.46	705.31	708.17	15.41
28	711.10	714.05	717.01	719.97	722.92	725.88	728.83	731.79	734.75	737.70	740.66	743.61	15.99
29	746.57	749.53	752.48	755.44	758.39	761.35	764.31	767.26	770.22	773.17	776.13	779.09	16.58
30	782.12	785.18	788.24	791.30	794.36	797.42	800.47	803.53	806.59	809.65	812.71	815.77	17.17
31	818.83	821.89	824.95	828.01	831.07	834.13	837.19	840.25	843.31	846.37	849.43	852.49	17.76

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 8 7/8 IN CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	855.62	858.79	861.96	865.12	868.29	871.45	874.62	877.79	880.95	884.12	887.29	890.45	18.35
33	893.62	896.78	899.95	903.12	906.28	909.45	912.61	915.78	918.95	922.11	925.28	928.45	18.94
34	931.49	934.49	937.50	940.50	943.50	946.51	949.51	952.51	955.51	958.52	961.52	964.52	19.53
35	967.53	970.53	973.53	976.54	979.54	982.54	985.55	988.55	991.55	994.55	997.56	1000.56	20.08
36	1003.56	1006.57	1009.57	1012.57									20.63

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 35 FT. 8 7/8 IN CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4	8	13	18	22	27	32	37	41	46	51	55	0.03
1	60	65	70	74	79	84	88	93	98	102	107	112	0.50
2	119	128	136	145	153	161	170	178	187	195	203	212	0.98
3	220	229	237	245	254	262	270	279	287	296	304	312	1.55
4	322	332	343	353	363	373	384	394	404	414	425	435	2.12
5	445	455	465	476	486	496	506	517	527	537	547	557	2.69
6	569	580	592	604	615	627	638	650	661	673	685	696	3.26
7	708	719	731	743	754	766	777	789	801	812	824	835	3.84
8	848	860	873	886	899	911	924	937	949	962	975	987	4.41
9	1000	1013	1025	1038	1051	1063	1076	1089	1101	1114	1127	1139	4.99
10	1153	1166	1180	1193	1207	1221	1234	1248	1261	1275	1289	1302	5.56
11	1316	1329	1343	1356	1370	1384	1397	1411	1424	1438	1451	1465	6.13
12	1479	1494	1508	1522	1537	1551	1565	1580	1594	1608	1623	1637	6.71
13	1651	1666	1680	1694	1709	1723	1737	1752	1766	1781	1795	1809	7.28
14	1824	1839	1854	1869	1884	1899	1914	1929	1944	1960	1975	1990	7.85
15	2005	2020	2035	2050	2065	2080	2095	2110	2125	2140	2155	2170	8.42

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 36 FT. 0 6/8 IN CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2186	2201	2217	2233	2249	2264	2280	2296	2311	2327	2343	2358	8.99
17	2374	2390	2406	2421	2437	2453	2468	2484	2500	2515	2531	2547	9.56
18	2563	2579	2596	2612	2628	2645	2661	2677	2694	2710	2726	2743	10.13
19	2759	2775	2792	2808	2824	2841	2857	2873	2890	2906	2922	2939	10.71
20	2956	2973	2990	3006	3023	3040	3057	3074	3091	3108	3125	3142	11.28
21	3159	3176	3193	3210	3227	3244	3261	3278	3295	3312	3329	3346	11.85
22	3363	3381	3398	3416	3434	3451	3469	3486	3504	3522	3539	3557	12.42
23	3574	3592	3609	3627	3645	3662	3680	3697	3715	3733	3750	3768	13.00
24	3786	3804	3822	3841	3859	3877	3895	3913	3932	3950	3968	3986	13.58
25	4005	4023	4041	4059	4078	4096	4114	4132	4150	4169	4187	4205	14.16
26	4224	4243	4262	4280	4299	4318	4337	4356	4375	4394	4413	4431	14.73
27	4450	4469	4488	4507	4526	4545	4564	4582	4601	4620	4639	4658	15.32
28	4677	4697	4716	4736	4755	4775	4795	4814	4834	4853	4873	4892	15.90
29	4912	4931	4951	4970	4990	5009	5029	5048	5068	5088	5107	5127	16.48
30	5147	5167	5187	5207	5228	5248	5268	5288	5308	5329	5349	5369	17.07
31	5389	5410	5430	5450	5470	5490	5511	5531	5551	5571	5592	5612	17.66

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 36 FT. 0 6/8 IN CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	849.49	852.65	855.81	858.96	862.12	865.27	868.43	871.59	874.74	877.90	881.05	884.21	18.25
33	887.37	890.52	893.68	896.84	899.99	903.15	906.30	909.46	912.62	915.77	918.93	922.08	18.84
34	924.97	927.76	930.56	933.35	936.15	938.94	941.74	944.53	947.33	950.12	952.92	955.71	19.43
35	958.51	961.30	964.09	966.89	969.68	972.48	975.27	978.07	980.86	983.66	986.45	989.25	19.94
36	992.04	994.84	997.63	1000.43	1003.22	1006.02	1008.81	1011.61	1014.40				20.45

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 36 FT. 0 6/8 IN CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	329.65	332.01	334.38	336.75	339.12	341.49	343.85	346.22	348.59	350.96	353.33	355.69	8.99
17	358.06	360.43	362.80	365.17	367.53	369.90	372.27	374.64	377.01	379.37	381.74	384.11	9.56
18	386.55	389.01	391.48	393.94	396.41	398.87	401.33	403.80	406.26	408.73	411.19	413.65	10.13
19	416.12	418.58	421.05	423.51	425.98	428.44	430.90	433.37	435.83	438.30	440.76	443.22	10.71
20	445.76	448.32	450.88	453.44	455.99	458.55	461.11	463.67	466.23	468.79	471.35	473.90	11.28
21	476.46	479.02	481.58	484.14	486.70	489.26	491.81	494.37	496.93	499.49	502.05	504.61	11.85
22	507.24	509.89	512.54	515.20	517.85	520.50	523.16	525.81	528.46	531.12	533.77	536.42	12.42
23	539.08	541.73	544.38	547.03	549.69	552.34	554.99	557.65	560.30	562.95	565.61	568.26	13.00
24	570.99	573.73	576.48	579.23	581.98	584.73	587.48	590.23	592.98	595.73	598.48	601.22	13.58
25	603.97	606.72	609.47	612.22	614.97	617.72	620.47	623.22	625.97	628.71	631.46	634.21	14.16
26	637.04	639.88	642.73	645.57	648.42	651.27	654.11	656.96	659.81	662.65	665.50	668.34	14.73
27	671.19	674.04	676.88	679.73	682.58	685.42	688.27	691.12	693.96	696.81	699.65	702.50	15.32
28	705.42	708.37	711.32	714.26	717.21	720.16	723.10	726.05	729.00	731.94	734.89	737.84	15.90
29	740.78	743.73	746.68	749.62	752.57	755.52	758.46	761.41	764.36	767.30	770.25	773.20	16.48
30	776.22	779.27	782.32	785.37	788.42	791.47	794.52	797.57	800.62	803.67	806.72	809.77	17.07
31	812.82	815.87	818.92	821.97	825.02	828.07	831.12	834.16	837.21	840.26	843.31	846.36	17.66

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 36 FT. 0 6/8 IN CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P.

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.54	1.25	1.96	2.67	3.38	4.09	4.80	5.51	6.22	6.93	7.64	8.35	0.03
1	9.06	9.77	10.48	11.19	11.90	12.61	13.32	14.03	14.74	15.45	16.17	16.88	0.50
2	18.01	19.27	20.54	21.81	23.07	24.34	25.60	26.87	28.14	29.40	30.67	31.93	0.98
3	33.20	34.47	35.73	37.00	38.26	39.53	40.80	42.06	43.33	44.59	45.86	47.13	1.55
4	48.60	50.14	51.69	53.23	54.77	56.31	57.86	59.40	60.94	62.48	64.03	65.57	2.12
5	67.11	68.65	70.20	71.74	73.28	74.83	76.37	77.91	79.45	81.00	82.54	84.08	2.69
6	85.78	87.53	89.28	91.02	92.77	94.52	96.27	98.02	99.77	101.51	103.26	105.01	3.26
7	106.76	108.51	110.26	112.00	113.75	115.50	117.25	119.00	120.75	122.49	124.24	125.99	3.84
8	127.86	129.78	131.69	133.60	135.51	137.43	139.34	141.25	143.16	145.07	146.99	148.90	4.41
9	150.81	152.72	154.63	156.55	158.46	160.37	162.28	164.20	166.11	168.02	169.93	171.84	4.99
10	173.86	175.91	177.95	180.00	182.05	184.10	186.14	188.19	190.24	192.29	194.33	196.38	5.56
11	198.43	200.48	202.53	204.57	206.62	208.67	210.72	212.76	214.81	216.86	218.91	220.95	6.13
12	223.09	225.25	227.42	229.58	231.75	233.91	236.07	238.24	240.40	242.57	244.73	246.90	6.71
13	249.06	251.23	253.39	255.55	257.72	259.88	262.05	264.21	266.38	268.54	270.70	272.87	7.28
14	275.11	277.38	279.65	281.92	284.19	286.46	288.73	291.00	293.27	295.53	297.80	300.07	7.85
15	302.34	304.61	306.88	309.15	311.42	313.69	315.96	318.23	320.49	322.76	325.03	327.30	8.42

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 36 FT. 0 6/8 IN CAP. = 994.31 F.O.LTON VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5633	5653	5674	5695	5716	5737	5758	5779	5800	5821	5842	5863	18.25
33	5884	5905	5926	5946	5967	5988	6009	6030	6051	6072	6093	6114	18.84
34	6133	6151	6170	6189	6207	6226	6244	6263	6281	6300	6318	6337	19.43
35	6355	6374	6392	6411	6429	6448	6467	6485	6504	6522	6541	6559	19.94
36	6578	6596	6615	6633	6652	6670	6689	6707	6726				20.45

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 36 FT. 0 6/8 IN CAP. = 6592.72 BARRELS VCG = 20.49 FT.ABV.B.L.
LOWEST POINT OF TANK 0.0 FT. ABV. B.L.
STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.
SHEET 3 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4	10	16	22	28	34	40	46	52	58	64	70	0.03
1	76	81	87	93	99	105	111	117	123	129	135	141	0.59
2	149	158	166	175	184	193	201	210	219	228	236	245	1.15
3	254	262	271	280	289	297	306	315	324	332	341	350	1.72
4	360	370	381	391	402	412	423	433	444	454	465	475	2.30
5	485	496	506	517	527	538	548	559	569	580	590	601	2.87
6	612	624	636	647	659	671	683	694	706	718	730	742	3.45
7	753	765	777	789	800	812	824	836	848	859	871	883	4.02
8	895	908	921	934	947	959	972	985	998	1011	1024	1036	4.60
9	1049	1062	1075	1088	1101	1113	1126	1139	1152	1165	1178	1190	5.17
10	1204	1218	1231	1245	1259	1272	1286	1300	1313	1327	1341	1355	5.74
11	1368	1382	1396	1409	1423	1437	1450	1464	1478	1492	1505	1519	6.32
12	1533	1548	1562	1577	1591	1606	1620	1634	1649	1663	1678	1692	6.89
13	1707	1721	1736	1750	1765	1779	1794	1808	1822	1837	1851	1866	7.46
14	1881	1896	1911	1926	1941	1957	1972	1987	2002	2017	2032	2048	8.03
15	2063	2078	2093	2108	2123	2138	2154	2169	2184	2199	2214	2229	8.60

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2245	2261	2277	2292	2308	2324	2340	2356	2371	2387	2403	2419	9.17
17	2435	2451	2466	2482	2498	2514	2530	2545	2561	2577	2593	2609	9.74
18	2625	2641	2658	2674	2691	2707	2724	2740	2756	2773	2789	2806	10.31
19	2822	2839	2855	2872	2888	2904	2921	2937	2954	2970	2987	3003	10.89
20	3020	3037	3054	3071	3088	3105	3122	3140	3157	3174	3191	3208	11.46
21	3225	3242	3259	3276	3293	3310	3327	3844	3362	3379	3396	3413	12.03
22	3430	3448	3466	3483	3501	3519	3537	3554	3572	3590	3607	3625	12.61
23	3643	3660	3678	3696	3714	3731	3749	3767	3784	3802	3820	3838	13.19
24	3856	3874	3892	3911	3929	3947	3966	3984	4002	4021	4039	4057	13.76
25	4076	4094	4112	4131	4149	4168	4186	4204	4223	4241	4259	4278	14.34
26	4296	4315	4334	4353	4372	4391	4410	4429	4448	4467	4486	4505	14.92
27	4524	4543	4562	4581	4600	4619	4638	4657	4676	4695	4714	4733	15.50
28	4753	4772	4792	4812	4831	4851	4871	4890	4910	4930	4949	4969	16.09
29	4989	5008	5028	5048	5067	5087	5107	5126	5146	5166	5185	5205	16.67
30	5225	5245	5266	5286	5306	5327	5347	5368	5388	5408	5429	5449	17.26
31	5469	5490	5510	5530	5551	5571	5591	5612	5632	5652	5673	5693	17.85

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5714	5735	5756	5777	5798	5819	5840	5861	5882	5904	5925	5946	18.44
33	5967	5988	6009	6030	6051	6072	6093	6114	6135	6156	6177	6198	19.04
34	6220	6242	6264	6285	6307	6329	6351	6373	6394	6416	6438	6460	19.63
35	6481	6503	6525	6547	6569	6590	6612	6634	6656	6678	6699	6721	20.23

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.64	1.54	2.44	3.33	4.23	5.12	6.02	6.92	7.81	8.71	9.60	10.50	0.03
1	11.39	12.29	13.19	14.08	14.98	15.87	16.77	17.67	18.56	19.46	20.35	21.25	0.59
2	22.45	23.77	25.08	26.40	27.72	29.04	30.36	31.68	32.99	34.31	35.63	36.95	1.15
3	38.27	39.59	40.90	42.22	43.54	44.86	46.18	47.50	48.81	50.13	51.45	52.77	1.72
4	54.27	55.85	57.43	59.01	60.59	62.17	63.75	65.32	66.90	68.48	70.06	71.64	2.30
5	73.22	74.80	76.38	77.95	79.53	81.11	82.69	84.27	85.85	87.43	89.00	90.58	2.87
6	92.30	94.08	95.86	97.63	99.41	101.18	102.96	104.73	106.51	108.29	110.06	111.84	3.45
7	113.61	115.39	117.16	118.94	120.72	122.49	124.27	126.04	127.82	129.60	131.37	133.15	4.02
8	135.04	136.97	138.91	140.84	142.77	144.71	146.64	148.58	150.51	152.45	154.38	156.31	4.60
9	158.25	160.18	162.12	164.05	165.99	167.92	169.85	171.79	173.72	175.66	177.59	179.53	5.17
10	181.56	183.62	185.69	187.76	189.82	191.89	193.95	196.02	198.09	200.15	202.22	204.29	5.74
11	206.35	208.42	210.49	212.55	214.62	216.69	218.75	220.82	222.89	224.95	227.02	229.08	6.32
12	231.23	233.42	235.60	237.78	239.96	242.14	244.32	246.50	248.69	250.87	253.05	255.23	6.89
13	257.41	259.59	261.77	263.96	266.14	268.32	270.50	272.68	274.86	277.05	279.23	281.41	7.46
14	283.66	285.95	288.24	290.52	292.81	295.09	297.38	299.66	301.95	304.23	306.52	308.81	8.03
15	311.09	313.38	315.66	317.95	320.23	322.52	324.80	327.09	329.38	331.66	333.95	336.23	8.60

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	338.59	340.97	343.36	345.74	348.13	350.51	352.89	355.28	357.66	360.05	362.43	364.82	9.17
17	367.20	369.58	371.97	374.35	376.74	379.12	381.51	383.89	386.27	388.66	391.04	393.43	9.74
18	395.88	398.36	400.84	403.32	405.80	408.28	410.76	413.24	415.72	418.21	420.69	423.17	10.31
19	425.65	428.13	430.61	433.09	435.57	438.05	440.53	443.01	445.49	447.97	450.45	452.93	10.89
20	455.48	458.06	460.63	463.21	465.78	468.36	470.93	473.51	476.08	478.66	481.23	483.81	11.46
21	486.38	488.96	491.53	494.11	496.68	499.26	501.83	504.41	506.99	509.56	512.14	514.71	12.03
22	517.35	520.03	522.70	525.37	528.04	530.71	533.38	536.05	538.72	541.39	544.06	546.73	12.61
23	549.40	552.07	554.74	557.41	560.08	562.75	565.42	568.09	570.76	573.43	576.10	578.77	13.19
24	581.51	584.28	587.04	589.81	592.58	595.34	598.11	600.88	603.64	606.41	609.18	611.94	13.76
25	614.71	617.47	620.24	623.01	625.77	628.54	631.31	634.07	636.84	639.61	642.37	645.14	14.34
26	647.98	650.84	653.71	656.57	659.44	662.30	665.16	668.03	670.89	673.76	676.62	679.49	14.92
27	682.35	685.22	688.08	690.95	693.81	696.67	699.54	702.40	705.27	708.13	711.00	713.86	15.50
28	716.80	719.76	722.73	725.70	728.66	731.63	734.59	737.56	740.52	743.49	746.45	749.42	16.09
29	752.38	755.35	758.31	761.28	764.25	767.21	770.18	773.14	776.11	779.07	782.04	785.00	16.67
30	788.04	791.11	794.18	797.25	800.32	803.39	806.46	809.53	812.60	815.67	818.74	821.81	17.26
31	824.88	827.94	831.01	834.08	837.15	840.22	843.29	846.36	849.43	852.50	855.57	858.64	17.85

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	861.78	864.96	868.14	871.31	874.49	877.66	880.84	884.02	887.19	890.37	893.55	896.72	18.44
33	899.90	903.07	906.25	909.43	912.60	915.78	918.96	922.13	925.31	928.48	931.66	934.84	19.04
34	938.09	941.38	944.67	947.95	951.24	954.52	957.81	961.10	964.38	967.67	970.96	974.24	19.63
35	977.53	980.82	984.10	987.39	990.68	993.96	997.25	1000.53	1003.82	1007.11	1010.39	1013.68	20.23

TANK 100 PERCENT FULL SOUNDING = 35 FT. 11 2/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4	9	15	20	25	30	36	41	46	52	57	62	0.03
1	68	73	78	84	89	94	100	105	110	115	121	126	0.54
2	134	142	151	160	168	177	185	194	202	211	220	228	1.06
3	237	245	254	262	271	280	288	297	305	314	322	331	1.63
4	341	351	362	372	382	393	403	413	424	434	444	455	2.20
5	465	475	486	496	506	517	527	538	548	558	569	579	2.78
6	590	602	614	625	637	649	660	672	684	695	707	719	3.35
7	730	742	754	766	777	789	801	812	824	836	847	859	3.93
8	871	884	897	910	922	935	948	961	973	986	999	1012	4.50
9	1025	1037	1050	1063	1076	1088	1101	1114	1127	1139	1152	1165	5.08
10	1178	1192	1205	1219	1233	1246	1260	1274	1287	1301	1315	1328	5.65
11	1342	1356	1369	1383	1396	1410	1424	1437	1451	1465	1478	1492	6.22
12	1506	1521	1535	1549	1564	1578	1593	1607	1621	1636	1650	1665	6.80
13	1679	1693	1708	1722	1737	1751	1765	1780	1794	1809	1823	1837	7.37
14	1852	1867	1883	1898	1913	1928	1943	1958	1973	1988	2003	2018	7.94
15	2034	2049	2064	2079	2094	2109	2124	2139	2154	2169	2185	2200	8.51

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 3

C7-1000

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2215	2231	2247	2263	2278	2294	2310	2326	2341	2357	2373	2389	9.08
17	2404	2420	2436	2452	2467	2483	2499	2515	2530	2546	2562	2578	9.65
18	2594	2610	2627	2643	2659	2676	2692	2709	2725	2741	2758	2774	10.22
19	2791	2807	2823	2840	2856	2873	2889	2905	2922	2938	2954	2971	10.80
20	2988	3005	3022	3039	3056	3073	3090	3107	3124	3141	3158	3175	11.37
21	3192	3209	3226	3243	3260	3277	3294	3311	3328	3345	3362	3379	11.94
22	3397	3414	3432	3450	3467	3485	3503	3520	3538	3556	3573	3591	12.52
23	3608	3626	3644	3661	3679	3697	3714	3732	3750	3767	3785	3803	13.09
24	3821	3839	3857	3876	3894	3912	3930	3949	3967	3985	4004	4022	13.67
25	4040	4058	4077	4095	4113	4132	4150	4168	4186	4205	4223	4241	14.25
26	4260	4279	4298	4317	4336	4355	4374	4393	4411	4430	4449	4468	14.83
27	4487	4506	4525	4544	4563	4582	4601	4620	4639	4658	4677	4695	15.41
28	4715	4734	4754	4774	4793	4813	4832	4852	4872	4891	4911	4930	15.99
29	4950	4970	4989	5009	5028	5048	5068	5087	5107	5126	5146	5166	16.58
30	5186	5206	5226	5247	5267	5287	5308	5328	5348	5368	5389	5409	17.17
31	5429	5450	5470	5490	5510	5531	5551	5571	5592	5612	5632	5652	17.76

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L. STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 3

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 43

337

WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5673	5694	5715	5736	5757	5778	5799	5820	5841	5862	5883	5904	18.35
33	5925	5946	5967	5988	6009	6030	6051	6072	6093	6114	6135	6156	18.94
34	6176	6196	6216	6236	6256	6276	6296	6316	6335	6355	6375	6395	19.53
35	6415	6435	6455	6475	6495	6515	6535	6555	6574	6594	6614	6634	20.08
36	6654	6674	6694	6714									20.63

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.59	1.39	2.19	3.00	3.80	4.60	5.40	6.20	7.00	7.80	8.60	9.40	0.03
1	10.20	11.01	11.81	12.61	13.41	14.21	15.01	15.81	16.61	17.41	18.21	19.02	0.54
2	20.18	21.47	22.77	24.06	25.35	26.64	27.94	29.23	30.52	31.82	33.11	34.40	1.06
3	35.70	36.99	38.28	39.57	40.87	42.16	43.45	44.75	46.04	47.33	48.62	49.92	1.63
4	51.41	52.97	54.53	56.09	57.65	59.21	60.77	62.34	63.90	65.46	67.02	68.58	2.20
5	70.14	71.70	73.26	74.82	76.38	77.94	79.51	81.07	82.63	84.19	85.75	87.31	2.78
6	89.02	90.78	92.54	94.31	96.07	97.83	99.59	101.36	103.12	104.88	106.64	108.41	3.35
7	110.17	111.93	113.69	115.45	117.22	118.98	120.74	122.50	124.27	126.03	127.79	129.55	3.93
8	131.43	133.36	135.28	137.20	139.13	141.05	142.97	144.90	146.82	148.74	150.67	152.59	4.50
9	154.51	156.44	158.36	160.29	162.21	164.13	166.06	167.98	169.90	171.83	173.75	175.67	5.08
10	177.69	179.75	181.81	183.87	185.92	187.98	190.04	192.09	194.15	196.21	198.26	200.32	5.65
11	202.38	204.44	206.49	208.55	210.61	212.66	214.72	216.78	218.84	220.89	222.95	225.01	6.22
12	227.15	229.32	231.50	233.67	235.84	238.01	240.19	242.36	244.53	246.71	248.88	251.05	6.80
13	253.22	255.40	257.57	259.74	261.92	264.09	266.26	268.43	270.61	272.78	274.95	277.13	7.37
14	279.38	281.65	283.93	286.21	288.49	290.76	293.04	295.32	297.60	299.87	302.15	304.43	7.94
15	306.71	308.98	311.26	313.54	315.81	318.09	320.37	322.65	324.92	327.20	329.48	331.76	8.51

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	334.11	336.48	338.86	341.23	343.61	345.99	348.36	350.74	353.11	355.49	357.87	360.24	9.08
17	362.62	365.00	367.37	369.75	372.12	374.50	376.88	379.25	381.63	384.00	386.38	388.76	9.65
18	391.20	393.68	396.15	398.62	401.09	403.56	406.04	408.51	410.98	413.45	415.93	418.40	10.22
19	420.87	423.34	425.82	428.29	430.76	433.23	435.70	438.18	440.65	443.12	445.59	448.07	10.80
20	450.61	453.17	455.74	458.31	460.88	463.44	466.01	468.58	471.14	473.71	476.28	478.84	11.37
21	481.41	483.98	486.54	489.11	491.68	494.25	496.81	499.38	501.95	504.51	507.08	509.65	11.94
22	512.28	514.95	517.61	520.27	522.93	525.59	528.25	530.92	533.58	536.24	538.90	541.56	12.52
23	544.22	546.89	549.55	552.21	554.87	557.53	560.19	562.86	565.52	568.18	570.84	573.50	13.09
24	576.24	578.99	581.75	584.51	587.27	590.02	592.78	595.54	598.30	601.05	603.81	606.57	13.67
25	609.33	612.09	614.84	617.60	620.36	623.12	625.87	628.63	631.39	634.15	636.91	639.66	14.25
26	642.49	645.35	648.20	651.06	653.91	656.77	659.63	662.48	665.34	668.19	671.05	673.90	14.83
27	676.76	679.61	682.47	685.32	688.18	691.03	693.89	696.75	699.60	702.46	705.31	708.17	15.41
28	711.10	714.05	717.01	719.97	722.92	725.88	728.83	731.79	734.75	737.70	740.66	743.61	15.99
29	746.57	749.53	752.48	755.44	758.39	761.35	764.31	767.26	770.22	773.17	776.13	779.09	16.58
30	782.12	785.18	788.24	791.30	794.36	797.42	800.47	803.53	806.59	809.65	812.71	815.77	17.17
31	818.83	821.89	824.95	828.01	831.07	834.13	837.19	840.25	843.31	846.37	849.43	852.49	17.76

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	855.62	858.79	861.96	865.12	868.29	871.45	874.62	877.79	880.95	884.12	887.29	890.45	18.35
33	893.62	896.78	899.95	903.12	906.28	909.45	912.61	915.78	918.95	922.11	925.28	928.45	18.94
34	931.49	934.49	937.50	940.50	943.50	946.51	949.51	952.51	955.51	958.52	961.52	964.52	19.53
35	967.53	970.53	973.53	976.54	979.54	982.54	985.55	988.55	991.55	994.55	997.56	1000.56	20.08
36	1003.56	1006.57	1009.57	1012.57									20.63

TANK 100 PERCENT FULL SOUNDING = 36 FT. 3 5/8 IN CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.062 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	4	8	13	18	22	27	32	37	41	46	51	55	0.03
1	60	65	70	74	79	84	88	93	98	102	107	112	0.50
2	119	128	136	145	153	161	170	178	187	195	203	212	0.98
3	220	229	237	245	254	262	270	279	287	296	304	312	1.55
4	322	332	343	353	363	373	384	394	404	414	425	435	2.12
5	445	455	465	476	486	496	506	517	527	537	547	557	2.69
6	569	580	592	604	615	627	638	650	661	673	685	696	3.26
7	708	719	731	743	754	766	777	789	801	812	824	835	3.84
8	848	860	873	886	899	911	924	937	949	962	975	987	4.41
9	1000	1013	1025	1038	1051	1063	1076	1089	1101	1114	1127	1139	4.99
10	1153	1166	1180	1193	1207	1221	1234	1248	1261	1275	1289	1302	5.56
11	1316	1329	1343	1356	1370	1384	1397	1411	1424	1438	1451	1465	6.13
12	1479	1494	1508	1522	1537	1551	1565	1580	1594	1608	1623	1637	6.71
13	1651	1666	1680	1694	1709	1723	1737	1752	1766	1781	1795	1809	7.28
14	1824	1839	1854	1869	1884	1899	1914	1929	1944	1960	1975	1990	7.85
15	2005	2020	2035	2050	2065	2080	2095	2110	2125	2140	2155	2170	8.42

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2186	2201	2217	2233	2249	2264	2280	2296	2311	2327	2343	2358	8.99
17	2374	2390	2406	2421	2437	2453	2468	2484	2500	2515	2531	2547	9.56
18	2563	2579	2596	2612	2628	2645	2661	2677	2694	2710	2726	2743	10.13
19	2759	2775	2792	2808	2824	2841	2857	2873	2890	2906	2922	2939	10.71
20	2956	2973	2990	3006	3023	3040	3057	3074	3091	3108	3125	3142	11.28
21	3159	3176	3193	3210	3227	3244	3261	3278	3295	3312	3329	3346	11.85
22	3363	3381	3398	3416	3434	3451	3469	3486	3504	3522	3539	3557	12.42
23	3574	3592	3609	3627	3645	3662	3680	3697	3715	3733	3750	3768	13.00
24	3786	3804	3822	3841	3859	3877	3895	3913	3932	3950	3968	3986	13.58
25	4005	4023	4041	4059	4078	4096	4114	4132	4150	4169	4187	4205	14.16
26	4224	4243	4262	4280	4299	4318	4337	4356	4375	4394	4413	4431	14.73
27	4450	4469	4488	4507	4526	4545	4564	4582	4601	4620	4639	4658	15.32
28	4677	4697	4716	4736	4755	4775	4795	4814	4834	4853	4873	4892	15.90
29	4912	4931	4951	4970	4990	5009	5029	5048	5068	5088	5107	5127	16.48
30	5147	5167	5187	5207	5228	5248	5268	5288	5308	5329	5349	5369	17.07
31	5389	5410	5430	5450	5470	5490	5511	5531	5551	5571	5592	5612	17.66

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5633	5653	5674	5695	5716	5737	5758	5779	5800	5821	5842	5863	18.25
33	5884	5905	5926	5946	5967	5988	6009	6030	6051	6072	6093	6114	18.84
34	6133	6151	6170	6189	6207	6226	6244	6263	6281	6300	6318	6337	19.43
35	6355	6374	6392	6411	6429	6448	6467	6485	6504	6522	6541	6559	19.94
36	6578	6596	6615	6633	6652	6670	6689	6707	6726				20.45

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 6727.27 BARRELS VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.54	1.25	1.96	2.67	3.38	4.09	4.80	5.51	6.22	6.93	7.64	8.35	0.03
1	9.06	9.77	10.48	11.19	11.90	12.61	13.32	14.03	14.74	15.45	16.17	16.88	0.50
2	18.01	19.27	20.54	21.81	23.07	24.34	25.60	26.87	28.14	29.40	30.67	31.93	0.98
3	33.20	34.47	35.73	37.00	38.26	39.53	40.80	42.06	43.33	44.59	45.86	47.13	1.55
4	48.60	50.14	51.69	53.23	54.77	56.31	57.86	59.40	60.94	62.48	64.03	65.57	2.12
5	67.11	68.65	70.20	71.74	73.28	74.83	76.37	77.91	79.45	81.00	82.54	84.08	2.69
6	85.78	87.53	89.28	91.02	92.77	94.52	96.27	98.02	99.77	101.51	103.26	105.01	3.26
7	106.76	108.51	110.26	112.00	113.75	115.50	117.25	119.00	120.75	122.49	124.24	125.99	3.84
8	127.86	129.78	131.69	133.60	135.51	137.43	139.34	141.25	143.16	145.07	146.99	148.90	4.41
9	150.81	152.72	154.63	156.55	158.46	160.37	162.28	164.20	166.11	168.02	169.93	171.84	4.99
10	173.86	175.91	177.95	180.00	182.05	184.10	186.14	188.19	190.24	192.29	194.33	196.38	5.56
11	198.43	200.48	202.53	204.57	206.62	208.67	210.72	212.76	214.81	216.86	218.91	220.95	6.13
12	223.09	225.25	227.42	229.58	231.75	233.91	236.07	238.24	240.40	242.57	244.73	246.90	6.71
13	249.06	251.23	253.39	255.55	257.72	259.88	262.05	264.21	266.38	268.54	270.70	272.87	7.28
14	275.11	277.38	279.65	281.92	284.19	286.46	288.73	291.00	293.27	295.53	297.80	300.07	7.85
15	302.34	304.61	306.88	309.15	311.42	313.69	315.96	318.23	320.49	322.76	325.03	327.30	8.42

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 1 OF 3

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.44

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	329.65	332.01	334.38	336.75	339.12	341.49	343.85	346.22	348.59	350.96	353.33	355.69	8.99
17	358.06	360.43	362.80	365.17	367.53	369.90	372.27	374.64	377.01	379.37	381.74	384.11	9.56
18	386.55	389.01	391.48	393.94	396.41	398.87	401.33	403.80	406.26	408.73	411.19	413.65	10.13
19	416.12	418.58	421.05	423.51	425.98	428.44	430.90	433.37	435.83	438.30	440.76	443.22	10.71
20	445.76	448.32	450.88	453.44	455.99	458.55	461.11	463.67	466.23	468.79	471.35	473.90	11.28
21	476.46	479.02	481.58	484.14	486.70	489.26	491.81	494.37	496.93	499.49	502.05	504.61	11.85
22	507.24	509.89	512.54	515.20	517.85	520.50	523.16	525.81	528.46	531.12	533.77	536.42	12.42
23	539.08	541.73	544.38	547.03	549.69	552.34	554.99	557.65	560.30	562.95	565.61	568.26	13.00
24	570.99	573.73	576.48	579.23	581.98	584.73	587.48	590.23	592.98	595.73	598.48	601.22	13.58
25	603.97	606.72	609.47	612.22	614.97	617.72	620.47	623.22	625.97	628.71	631.46	634.21	14.16
26	637.04	639.88	642.73	645.57	648.42	651.27	654.11	656.96	659.81	662.65	665.50	668.34	14.73
27	671.19	674.04	676.88	679.73	682.58	685.42	688.27	691.12	693.96	696.81	699.65	702.50	15.32
28	705.42	708.37	711.32	714.26	717.21	720.16	723.10	726.05	729.00	731.94	734.89	737.84	15.90
29	740.78	743.73	746.68	749.62	752.57	755.52	758.46	761.41	764.36	767.30	770.25	773.20	16.48
30	776.22	779.27	782.32	785.37	788.42	791.47	794.52	797.57	800.62	803.67	806.72	809.77	17.07
31	812.82	815.87	818.92	821.97	825.02	828.07	831.12	834.16	837.21	840.26	843.31	846.36	17.66

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 2 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FUEL OIL STORAGE TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 44-52 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	849.49	852.65	855.81	858.96	862.12	865.27	868.43	871.59	874.74	877.90	881.05	884.21	18.25
33	887.37	890.52	893.68	896.84	899.99	903.15	906.30	909.46	912.62	915.77	918.93	922.08	18.84
34	924.97	927.76	930.56	933.35	936.15	938.94	941.74	944.53	947.33	950.12	952.92	955.71	19.43
35	958.51	961.30	964.09	966.89	969.68	972.48	975.27	978.07	980.86	983.66	986.45	989.25	19.94
36	992.04	994.84	997.63	1000.43	1003.22	1006.02	1008.81	1011.61	1014.40				20.45

TANK 100 PERCENT FULL SOUNDING = 36 FT. 8 INCHES CAP. = 1014.60 F.O.LTON VCG = 20.79 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.063 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 60.940 FT.

SHEET 3 OF 3

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	9	22	34	47	59	72	85	97	110	122	135	148	8.53
1	160	173	185	198	211	223	236	248	261	274	286	299	9.04
2	312	326	340	353	367	381	394	408	422	435	449	463	9.55
3	476	490	504	517	531	545	558	572	586	600	613	627	10.07
4	641	656	670	685	699	714	728	743	757	772	786	801	10.59
5	815	830	844	859	873	887	902	916	931	945	960	974	11.11
6	989	1004	1020	1035	1050	1065	1080	1095	1110	1125	1140	1155	11.64
7	1170	1185	1200	1216	1231	1246	1261	1276	1291	1306	1321	1336	12.16
8	1352	1367	1383	1398	1414	1429	1445	1460	1476	1491	1507	1522	12.69
9	1537	1553	1568	1584	1599	1615	1630	1646	1661	1677	1692	1708	13.22
10	1724	1739	1755	1771	1787	1802	1818	1834	1850	1865	1881	1897	13.74
11	1913	1928	1944	1960	1976	1992	2007	2023	2039	2055	2070	2086	14.27
12	2102	2118	2134	2150	2166	2181	2197	2213	2229	2245	2261	2277	14.79
13	2293	2309	2325	2341	2356	2372	2388	2404	2420	2436	2452	2468	15.31
14	2484	2500	2516	2532	2547	2563	2579	2595	2611	2627	2643	2659	15.83
15	2675	2691	2707	2723	2739	2755	2771	2787	2803	2819	2835	2851	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2867	2882	2898	2914	2930	2946	2962	2978	2994	3010	3026	3042	16.86
17	3058	3074	3090	3106	3122	3138	3154	3170	3186	3202	3218	3233	17.38
18	3249	3265	3281	3297	3313	3329	3345	3361	3377	3393	3409	3425	17.89
19	3441	3457	3473	3489	3505	3521	3537	3553	3569	3584	3600	3616	18.40
20	3632	3648	3664	3680	3696	3712	3728	3744	3760	3776	3792	3808	18.91
21	3824	3840	3856	3872	3888	3904	3920	3935	3951	3967	3983	3999	19.42
22	4015	4031	4047	4062	4078	4094	4110	4125	4141	4157	4173	4188	19.92
23	4204	4220	4236	4251	4267	4283	4298	4314	4330	4346	4361	4377	20.42
24	4392	4408	4423	4438	4453	4468	4483	4498	4513	4528	4544	4559	20.92
25	4574	4589	4604	4619	4634	4649	4664	4679	4695	4710	4725	4740	21.40
26	4755	4770	4785	4800	4815	4831	4846	4861	4876	4891	4906	4921	21.89
27	4936	4951	4966	4982	4997	5012	5027	5042	5057	5072	5087	5102	22.37
28	5118	5133	5148	5163	5178	5193	5208	5223	5238	5253	5269	5284	22.85
29	5299	5314	5329	5344	5359	5374	5389	5405	5420	5435	5450	5465	23.34
30	5480	5495	5510	5525	5540	5556	5571	5586	5601	5616	5631	5646	23.83
31	5661	5676	5692	5707	5722	5737	5752	5767	5782	5797	5812	5828	24.31

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	432.33	434.74	437.14	439.55	441.95	444.36	446.77	449.17	451.58	453.99	456.39	458.80	16.86
17	461.20	463.61	466.02	468.42	470.83	473.24	475.64	478.05	480.45	482.86	485.27	487.67	17.38
18	490.08	492.49	494.89	497.30	499.70	502.11	504.52	506.92	509.33	511.74	514.14	516.55	17.89
19	518.95	521.36	523.77	526.17	528.58	530.98	533.39	535.80	538.20	540.61	543.02	545.42	18.40
20	547.83	550.23	552.64	555.05	557.45	559.86	562.27	564.67	567.08	569.49	571.89	574.30	18.91
21	576.70	579.11	581.52	583.92	586.33	588.73	591.14	593.55	595.95	598.36	600.77	603.17	19.42
22	605.56	607.93	610.30	612.68	615.05	617.43	619.80	622.18	624.55	626.92	629.30	631.67	19.92
23	634.05	636.42	638.80	641.17	643.54	645.92	648.29	650.67	653.04	655.42	657.79	660.16	20.42
24	662.47	664.75	667.03	669.30	671.58	673.86	676.14	678.42	680.69	682.97	685.25	687.53	20.92
25	689.81	692.09	694.36	696.64	698.92	701.20	703.48	705.75	708.03	710.31	712.59	714.87	21.40
26	717.15	719.42	721.70	723.98	726.26	728.54	730.82	733.09	735.37	737.65	739.93	742.21	21.89
27	744.48	746.76	749.04	751.32	753.60	755.88	758.15	760.43	762.71	764.99	767.27	769.55	22.37
28	771.82	774.10	776.38	778.66	780.94	783.21	785.49	787.77	790.05	792.33	794.61	796.88	22.85
29	799.16	801.44	803.72	806.00	808.28	810.55	812.83	815.11	817.39	819.67	821.94	824.22	23.34
30	826.50	828.78	831.06	833.34	835.61	837.89	840.17	842.45	844.73	847.00	849.28	851.56	23.83
31	853.84	856.12	858.40	860.67	862.95	865.23	867.51	869.79	872.06	874.34	876.62	878.90	24.31

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.37	3.27	5.17	7.07	8.97	10.87	12.77	14.67	16.57	18.47	20.37	22.27	8.53
1	24.16	26.06	27.96	29.86	31.76	33.66	35.56	37.46	39.36	41.26	43.16	45.06	9.04
2	47.08	49.14	51.21	53.27	55.33	57.40	59.46	61.53	63.59	65.65	67.72	69.78	9.55
3	71.84	73.91	75.97	78.04	80.10	82.16	84.23	86.29	88.35	90.42	92.48	94.55	10.07
4	96.70	98.88	101.07	103.25	105.44	107.62	109.81	112.00	114.18	116.37	118.55	120.74	10.59
5	122.92	125.11	127.29	129.48	131.66	133.85	136.04	138.22	140.41	142.59	144.78	146.96	11.11
6	149.21	151.49	153.76	156.04	158.31	160.59	162.86	165.13	167.41	169.68	171.96	174.23	11.64
7	176.51	178.78	181.05	183.33	185.60	187.88	190.15	192.43	194.70	196.98	199.25	201.52	12.16
8	203.84	206.18	208.52	210.85	213.19	215.53	217.86	220.20	222.54	224.87	227.21	229.55	12.69
9	231.88	234.22	236.56	238.89	241.23	243.57	245.90	248.24	250.57	252.91	255.25	257.58	13.22
10	259.95	262.33	264.70	267.08	269.46	271.83	274.21	276.59	278.97	281.34	283.72	286.10	13.74
11	288.47	290.85	293.23	295.60	297.98	300.36	302.74	305.11	307.49	309.87	312.24	314.62	14.27
12	317.01	319.41	321.81	324.21	326.61	329.01	331.41	333.80	336.20	338.60	341.00	343.40	14.79
13	345.80	348.20	350.60	352.99	355.39	357.79	360.19	362.59	364.99	367.39	369.79	372.18	15.31
14	374.59	376.99	379.40	381.81	384.21	386.62	389.02	391.43	393.84	396.24	398.65	401.05	15.83
15	403.46	405.86	408.27	410.68	413.08	415.49	417.89	420.30	422.71	425.11	427.52	429.92	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8363	8373	8383	8394	8404	8414	8424	8435	8445	8455	8465	8476	31.75
49	8486	8496	8507	8517	8527	8537	8548	8558	8568	8578	8589	8599	32.12
50	8609	8620	8630	8640	8650	8661	8671	8681	8692	8702	8712	8722	32.49
51	8733	8743	8753	8763	8774	8784	8790	8796	8801				32.86

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5843	5858	5873	5888	5903	5918	5933	5948	5963	5979	5994	6009	24.80
33	6024	6039	6054	6069	6084	6099	6115	6130	6145	6160	6175	6190	25.29
34	6205	6220	6235	6250	6266	6281	6296	6311	6326	6341	6356	6371	25.78
35	6386	6402	6417	6432	6447	6462	6477	6492	6507	6522	6537	6553	26.27
36	6568	6583	6598	6613	6628	6643	6658	6673	6689	6704	6719	6734	26.76
37	6749	6764	6779	6794	6809	6824	6840	6855	6870	6885	6900	6915	27.25
38	6930	6945	6960	6976	6991	7006	7021	7036	7051	7066	7081	7096	27.75
39	7111	7127	7142	7157	7172	7187	7202	7217	7232	7247	7263	7278	28.24
40	7293	7308	7323	7338	7353	7368	7383	7398	7414	7429	7444	7459	28.73
41	7474	7489	7504	7519	7534	7550	7561	7571	7582	7592	7602	7613	29.22
42	7623	7633	7643	7654	7664	7674	7684	7695	7705	7715	7726	7736	29.63
43	7746	7756	7767	7777	7787	7798	7808	7818	7828	7839	7849	7859	29.97
44	7869	7880	7890	7900	7911	7921	7931	7941	7952	7962	7972	7982	30.32
45	7993	8003	8013	8024	8034	8044	8054	8065	8075	8085	8096	8106	30.67
46	8116	8126	8137	8147	8157	8167	8178	8188	8198	8209	8219	8229	31.03
47	8239	8250	8260	8270	8280	8291	8301	8311	8322	8332	8342	8352	31.38

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1005

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 45

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	881.18	883.46	885.73	888.01	890.29	892.57	894.85	897.13	899.40	901.68	903.96	906.24	24.80
33	908.52	910.79	913.07	915.35	917.63	919.91	922.19	924.46	926.74	929.02	931.30	933.58	25.29
34	935.85	938.13	940.41	942.69	944.97	947.25	949.52	951.80	954.08	956.36	958.64	960.91	25.78
35	963.19	965.47	967.75	970.03	972.31	974.58	976.86	979.14	981.42	983.70	985.97	988.25	26.27
36	990.53	992.81	995.09	997.37	999.64	1001.92	1004.20	1006.48	1008.76	1011.03	1013.31	1015.59	26.76
37	1017.87	1020.15	1022.43	1024.70	1026.98	1029.26	1031.54	1033.82	1036.09	1038.37	1040.65	1042.93	27.25
38	1045.21	1047.49	1049.76	1052.04	1054.32	1056.60	1058.88	1061.16	1063.43	1065.71	1067.99	1070.27	27.75
39	1072.55	1074.82	1077.10	1079.38	1081.66	1083.94	1086.22	1088.49	1090.77	1093.05	1095.33	1097.61	28.24
40	1099.88	1102.16	1104.44	1106.72	1109.00	1111.28	1113.55	1115.83	1118.11	1120.39	1122.67	1124.94	28.73
41	1127.22	1129.50	1131.78	1134.06	1136.34	1138.61	1140.37	1141.92	1143.47	1145.02	1146.57	1148.12	29.22
42	1149.67	1151.22	1152.77	1154.32	1155.87	1157.42	1158.97	1160.52	1162.07	1163.62	1165.16	1166.71	29.63
43	1168.26	1169.81	1171.36	1172.91	1174.46	1176.01	1177.56	1179.11	1180.66	1182.21	1183.76	1185.31	29.97
44	1186.86	1188.41	1189.96	1191.51	1193.06	1194.61	1196.16	1197.71	1199.26	1200.81	1202.36	1203.91	30.32
45	1205.46	1207.01	1208.56	1210.11	1211.66	1213.21	1214.76	1216.31	1217.86	1219.41	1220.96	1222.51	30.67
46	1224.06	1225.61	1227.16	1228.71	1230.26	1231.81	1233.36	1234.91	1236.46	1238.01	1239.56	1241.10	31.03
47	1242.65	1244.20	1245.75	1247.30	1248.85	1250.40	1251.95	1253.50	1255.05	1256.60	1258.15	1259.70	31.38

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	425.99	428.40	430.80	433.21	435.62	438.02	440.43	442.83	445.24	447.65	450.05	452.46	16.75
17	454.87	457.27	459.68	462.08	464.49	466.90	469.30	471.71	474.12	476.52	478.93	481.33	17.26
18	483.74	486.15	488.55	490.96	493.37	495.77	498.18	500.58	502.99	505.40	507.80	510.21	17.78
19	512.62	515.02	517.43	519.83	522.24	524.65	527.05	529.46	531.86	534.27	536.68	539.08	18.29
20	541.49	543.90	546.30	548.71	551.12	553.52	555.93	558.33	560.74	563.15	565.55	567.96	18.80
21	570.37	572.77	575.18	577.58	579.99	582.40	584.80	587.21	589.62	592.02	594.43	596.83	19.30
22	599.22	601.61	604.00	606.39	608.77	611.16	613.55	615.94	618.32	620.71	623.10	625.49	19.81
23	627.87	630.26	632.65	635.04	637.42	639.81	642.20	644.59	646.97	649.36	651.75	654.14	20.31
24	656.43	658.71	660.99	663.27	665.54	667.82	670.10	672.38	674.66	676.94	679.21	681.49	20.82
25	683.77	686.05	688.33	690.61	692.88	695.16	697.44	699.72	702.00	704.27	706.55	708.83	21.30
26	711.11	713.39	715.67	717.94	720.22	722.50	724.78	727.06	729.33	731.61	733.89	736.17	21.78
27	738.45	740.73	743.00	745.28	747.56	749.84	752.12	754.40	756.67	758.95	761.23	763.51	22.26
28	765.79	768.07	770.34	772.62	774.90	777.18	779.46	781.73	784.01	786.29	788.57	790.85	22.75
29	793.13	795.40	797.68	799.96	802.24	804.52	806.79	809.07	811.35	813.63	815.91	818.19	23.23
30	820.46	822.74	825.02	827.30	829.58	831.85	834.13	836.41	838.69	840.97	843.25	845.52	23.72
31	847.80	850.08	852.36	854.64	856.92	859.19	861.47	863.75	866.03	868.31	870.58	872.86	24.21

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1261.25	1262.80	1264.35	1265.90	1267.45	1269.00	1270.55	1272.10	1273.65	1275.20	1276.75	1278.30	31.75
49	1279.65	1281.40	1282.95	1284.50	1286.05	1287.60	1289.15	1290.70	1292.25	1293.80	1295.35	1296.90	32.12
50	1298.45	1300.00	1301.55	1303.10	1304.65	1306.20	1307.75	1309.30	1310.85	1312.40	1313.95	1315.49	32.49
51	1317.04	1318.59	1320.14	1321.69	1323.24	1324.79	1325.77	1326.53	1327.29				32.86

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 1 4/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.41	3.08	4.76	6.43	8.10	9.77	11.44	13.12	14.79	16.46	18.13	19.80	8.53
1	21.48	23.15	24.82	26.49	28.16	29.83	31.51	33.18	34.85	36.52	38.19	39.87	8.98
2	41.85	43.90	45.95	48.00	50.04	52.09	54.14	56.19	58.23	60.28	62.33	64.37	9.44
3	66.42	68.47	70.52	72.56	74.61	76.66	78.71	80.75	82.80	84.85	86.89	88.94	9.96
4	91.10	93.27	95.44	97.62	99.79	101.96	104.14	106.31	108.48	110.66	112.83	115.00	10.47
5	117.18	119.35	121.52	123.70	125.87	128.04	130.22	132.39	134.56	136.74	138.91	141.08	11.00
6	143.33	145.60	147.87	150.13	152.40	154.66	156.93	159.19	161.46	163.73	165.99	168.26	11.52
7	170.52	172.79	175.05	177.32	179.59	181.85	184.12	186.38	188.65	190.91	193.18	195.44	12.05
8	197.77	200.10	202.43	204.76	207.09	209.42	211.75	214.08	216.41	218.74	221.07	223.40	12.58
9	225.73	228.06	230.39	232.73	235.06	237.39	239.72	242.05	244.38	246.71	249.04	251.37	13.10
10	253.74	256.11	258.48	260.86	263.23	265.60	267.98	270.35	272.72	275.10	277.47	279.84	13.63
11	282.22	284.59	286.96	289.34	291.71	294.08	296.46	298.83	301.20	303.58	305.95	308.32	14.15
12	310.72	313.11	315.51	317.91	320.30	322.70	325.10	327.50	329.89	332.29	334.69	337.08	14.68
13	339.48	341.88	344.28	346.67	349.07	351.47	353.86	356.26	358.66	361.06	363.45	365.85	15.20
14	368.25	370.66	373.06	375.47	377.88	380.28	382.69	385.09	387.50	389.90	392.31	394.72	15.72
15	397.12	399.53	401.93	404.34	406.74	409.15	411.56	413.96	416.37	418.77	421.18	423.58	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	9	20	32	43	54	65	76	87	98	109	120	131	8.53
1	142	153	165	176	187	198	209	220	231	242	253	264	8.98
2	278	291	305	318	332	345	359	373	386	400	413	427	9.44
3	440	454	468	481	495	508	522	535	549	563	576	590	9.96
4	604	618	633	647	662	676	690	705	719	734	748	763	10.47
5	777	791	806	820	835	849	863	878	892	907	921	935	11.00
6	950	965	980	995	1010	1025	1041	1056	1071	1086	1101	1116	11.52
7	1131	1146	1161	1176	1191	1206	1221	1236	1251	1266	1281	1296	12.05
8	1311	1327	1342	1358	1373	1389	1404	1419	1435	1450	1466	1481	12.58
9	1497	1512	1528	1543	1559	1574	1589	1605	1620	1636	1651	1667	13.10
10	1682	1698	1714	1730	1745	1761	1777	1793	1808	1824	1840	1855	13.63
11	1871	1887	1903	1918	1934	1950	1966	1981	1997	2013	2029	2044	14.15
12	2060	2076	2092	2108	2124	2140	2156	2171	2187	2203	2219	2235	14.68
13	2251	2267	2283	2299	2314	2330	2346	2362	2378	2394	2410	2426	15.20
14	2442	2458	2474	2490	2505	2521	2537	2553	2569	2585	2601	2617	15.72
15	2633	2649	2665	2681	2697	2713	2729	2745	2761	2777	2793	2809	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8336	8346	8356	8366	8377	8387	8397	8407	8418	8428	8438	8449	31.67
49	8459	8469	8479	8490	8500	8510	8520	8531	8541	8551	8562	8572	32.04
50	8582	8592	8603	8613	8623	8634	8644	8654	8664	8675	8685	8695	32.41
51	8705	8716	8726	8736	8747	8757	8763	8768	8773	8778	8783	8788	32.78
52	8793	8799											33.05

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2825	2840	2856	2872	2888	2904	2920	2936	2952	2968	2984	3000	16.75
17	3016	3032	3048	3064	3080	3096	3112	3128	3144	3160	3176	3191	17.26
18	3207	3223	3239	3255	3271	3287	3303	3319	3335	3351	3367	3383	17.78
19	3399	3415	3431	3447	3463	3479	3495	3511	3527	3542	3558	3574	18.29
20	3590	3606	3622	3638	3654	3670	3686	3702	3718	3734	3750	3766	18.80
21	3782	3798	3814	3830	3846	3862	3878	3893	3909	3925	3941	3957	19.30
22	3973	3989	4005	4021	4036	4052	4068	4084	4100	4116	4131	4147	19.81
23	4163	4179	4195	4211	4226	4242	4258	4274	4290	4306	4321	4337	20.31
24	4352	4368	4383	4398	4413	4428	4443	4458	4473	4488	4503	4519	20.82
25	4534	4549	4564	4579	4594	4609	4624	4639	4655	4670	4685	4700	21.30
26	4715	4730	4745	4760	4775	4791	4806	4821	4836	4851	4866	4881	21.78
27	4896	4911	4926	4942	4957	4972	4987	5002	5017	5032	5047	5062	22.26
28	5078	5093	5108	5123	5138	5153	5168	5183	5198	5213	5229	5244	22.75
29	5259	5274	5289	5304	5319	5334	5349	5365	5380	5395	5410	5425	23.23
30	5440	5455	5470	5485	5500	5516	5531	5546	5561	5576	5591	5606	23.72
31	5621	5636	5652	5667	5682	5697	5712	5727	5742	5757	5772	5787	24.21

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 2 OF 4

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5803	5818	5833	5848	5863	5878	5893	5908	5923	5939	5954	5969	24.70
33	5984	5999	6014	6029	6044	6059	6074	6090	6105	6120	6135	6150	25.18
34	6165	6180	6195	6210	6226	6241	6256	6271	6286	6301	6316	6331	25.67
35	6346	6361	6377	6392	6407	6422	6437	6452	6467	6482	6497	6513	26.16
36	6528	6543	6558	6573	6588	6603	6618	6633	6648	6664	6679	6694	26.66
37	6709	6724	6739	6754	6769	6784	6800	6815	6830	6845	6860	6875	27.15
38	6890	6905	6920	6935	6951	6966	6981	6996	7011	7026	7041	7056	27.64
39	7071	7087	7102	7117	7132	7147	7162	7177	7192	7207	7222	7238	28.13
40	7253	7268	7283	7298	7313	7328	7343	7358	7374	7389	7404	7419	28.62
41	7434	7449	7464	7479	7494	7510	7521	7532	7543	7554	7564	7575	29.12
42	7586	7597	7608	7619	7629	7640	7651	7662	7673	7684	7694	7705	29.53
43	7716	7727	7738	7749	7759	7770	7781	7791	7801	7811	7822	7832	29.89
44	7842	7853	7863	7873	7883	7894	7904	7914	7924	7935	7945	7955	30.24
45	7966	7976	7986	7996	8007	8017	8027	8038	8048	8058	8068	8079	30.59
46	8089	8099	8109	8120	8130	8140	8151	8161	8171	8181	8192	8202	30.95
47	8212	8222	8233	8243	8253	8264	8274	8284	8294	8305	8315	8325	31.31

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

C7-1000

SHEET 3 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 46

361

WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	875.14	877.42	879.70	881.98	884.25	886.53	888.81	891.09	893.37	895.64	897.92	900.20	24.70
33	902.48	904.76	907.04	909.31	911.59	913.87	916.15	918.43	920.70	922.98	925.26	927.54	25.18
34	929.82	932.10	934.37	936.65	938.93	941.21	943.49	945.77	948.04	950.32	952.60	954.88	25.67
35	957.16	959.43	961.71	963.99	966.27	968.55	970.83	973.10	975.38	977.66	979.94	982.22	26.16
36	984.49	986.77	989.05	991.33	993.61	995.89	998.16	1000.44	1002.72	1005.00	1007.28	1009.55	26.66
37	1011.83	1014.11	1016.39	1018.67	1020.95	1023.22	1025.50	1027.78	1030.06	1032.34	1034.61	1036.89	27.15
38	1039.17	1041.45	1043.73	1046.01	1048.28	1050.56	1052.84	1055.12	1057.40	1059.68	1061.95	1064.23	27.64
39	1066.51	1068.79	1071.07	1073.34	1075.62	1077.90	1080.18	1082.46	1084.74	1087.01	1089.29	1091.57	28.13
40	1093.85	1096.13	1098.40	1100.68	1102.96	1105.24	1107.52	1109.80	1112.07	1114.35	1116.63	1118.91	28.62
41	1121.19	1123.46	1125.74	1128.02	1130.30	1132.58	1134.31	1135.95	1137.58	1139.22	1140.85	1142.48	29.12
42	1144.12	1145.75	1147.39	1149.02	1150.66	1152.29	1153.93	1155.56	1157.19	1158.83	1160.46	1162.10	29.53
43	1163.73	1165.37	1167.00	1168.64	1170.27	1171.90	1173.47	1175.02	1176.57	1178.12	1179.67	1181.22	29.89
44	1182.77	1184.32	1185.87	1187.42	1188.97	1190.52	1192.07	1193.61	1195.16	1196.71	1198.26	1199.81	30.24
45	1201.36	1202.91	1204.46	1206.01	1207.56	1209.11	1210.66	1212.21	1213.76	1215.31	1216.86	1218.41	30.59
46	1219.96	1221.51	1223.06	1224.61	1226.16	1227.71	1229.26	1230.81	1232.36	1233.91	1235.46	1237.01	30.95
47	1238.56	1240.11	1241.66	1243.21	1244.76	1246.31	1247.86	1249.41	1250.96	1252.51	1254.06	1255.61	31.31

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 3 OF 4
C7-1000

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WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1257.16	1258.71	1260.26	1261.81	1263.36	1264.91	1266.46	1268.01	1269.55	1271.10	1272.65	1274.20	31.67
49	1275.75	1277.30	1278.85	1280.40	1281.95	1283.50	1285.05	1286.60	1288.15	1289.70	1291.25	1292.80	32.04
50	1294.35	1295.90	1297.45	1299.00	1300.55	1302.10	1303.65	1305.20	1306.75	1308.30	1309.85	1311.40	32.41
51	1312.95	1314.50	1316.05	1317.60	1319.15	1320.70	1321.59	1322.36	1323.13	1323.90	1324.67	1325.44	32.78
52	1326.21	1326.98											33.05

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 4 1/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 4 OF 4
C7-1000

363

WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	9	19	28	38	48	57	67	76	86	96	105	115	8.53
1	124	134	144	153	163	172	182	192	201	211	220	230	8.94
2	243	257	270	284	297	311	324	338	351	364	378	391	9.35
3	405	418	432	445	459	472	486	499	513	526	539	553	9.86
4	567	582	596	610	625	639	653	667	682	696	710	725	10.37
5	739	753	768	782	796	811	825	839	854	868	882	897	10.89
6	912	927	942	957	971	986	1001	1016	1031	1046	1061	1076	11.41
7	1091	1106	1121	1136	1151	1166	1181	1196	1211	1226	1241	1256	11.94
8	1271	1287	1302	1317	1333	1348	1364	1379	1394	1410	1425	1441	12.46
9	1456	1471	1487	1502	1518	1533	1549	1564	1579	1595	1610	1626	12.99
10	1641	1657	1673	1688	1704	1720	1736	1751	1767	1783	1798	1814	13.52
11	1830	1846	1861	1877	1893	1908	1924	1940	1955	1971	1987	2003	14.04
12	2018	2034	2050	2066	2082	2098	2114	2130	2146	2161	2177	2193	14.56
13	2209	2225	2241	2257	2273	2288	2304	2320	2336	2352	2368	2384	15.08
14	2400	2416	2432	2448	2464	2479	2495	2511	2527	2543	2559	2575	15.61
15	2591	2607	2623	2639	2655	2671	2687	2703	2719	2735	2751	2767	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 1 OF 4
C7-1000

364

WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2782	2798	2814	2830	2846	2862	2878	2894	2910	2926	2942	2958	16.64
17	2974	2990	3006	3022	3038	3054	3070	3086	3102	3118	3133	3149	17.15
18	3165	3181	3197	3213	3229	3245	3261	3277	3293	3309	3325	3341	17.67
19	3357	3373	3389	3405	3421	3437	3453	3469	3484	3500	3516	3532	18.18
20	3548	3564	3580	3596	3612	3628	3644	3660	3676	3692	3708	3724	18.69
21	3740	3756	3772	3788	3804	3820	3835	3851	3867	3883	3899	3915	19.19
22	3931	3947	3963	3979	3995	4011	4027	4043	4059	4074	4090	4106	19.70
23	4122	4138	4154	4170	4186	4202	4218	4234	4250	4265	4281	4297	20.21
24	4312	4328	4343	4358	4373	4388	4403	4418	4433	4448	4463	4479	20.71
25	4494	4509	4524	4539	4554	4569	4584	4599	4615	4630	4645	4660	21.19
26	4675	4690	4705	4720	4735	4750	4766	4781	4796	4811	4826	4841	21.67
27	4856	4871	4886	4902	4917	4932	4947	4962	4977	4992	5007	5022	22.16
28	5037	5053	5068	5083	5098	5113	5128	5143	5158	5173	5189	5204	22.64
29	5219	5234	5249	5264	5279	5294	5309	5324	5340	5355	5370	5385	23.13
30	5400	5415	5430	5445	5460	5476	5491	5506	5521	5536	5551	5566	23.61
31	5581	5596	5612	5627	5642	5657	5672	5687	5702	5717	5732	5747	24.10

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 2 OF 4
C7-1000

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WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5763	5778	5793	5808	5823	5838	5853	5868	5883	5899	5914	5929	24.59
33	5944	5959	5974	5989	6004	6019	6034	6050	6065	6080	6095	6110	25.08
34	6125	6140	6155	6170	6186	6201	6216	6231	6246	6261	6276	6291	25.57
35	6306	6321	6337	6352	6367	6382	6397	6412	6427	6442	6457	6473	26.06
36	6488	6503	6518	6533	6548	6563	6578	6593	6608	6624	6639	6654	26.55
37	6669	6684	6699	6714	6729	6744	6760	6775	6790	6805	6820	6835	27.04
38	6850	6865	6880	6895	6911	6926	6941	6956	6971	6986	7001	7016	27.53
39	7031	7047	7062	7077	7092	7107	7122	7137	7152	7167	7182	7198	28.02
40	7213	7228	7243	7258	7273	7288	7303	7318	7334	7349	7364	7379	28.51
41	7394	7409	7424	7439	7454	7469	7481	7492	7504	7515	7527	7538	29.01
42	7549	7561	7572	7584	7595	7606	7618	7629	7641	7652	7663	7675	29.43
43	7686	7698	7709	7720	7732	7743	7753	7764	7774	7784	7795	7805	29.81
44	7815	7825	7836	7846	7856	7867	7877	7887	7897	7908	7918	7928	30.17
45	7938	7949	7959	7969	7980	7990	8000	8010	8021	8031	8041	8051	30.52
46	8062	8072	8082	8093	8103	8113	8123	8134	8144	8154	8165	8175	30.87
47	8185	8195	8206	8216	8226	8236	8247	8257	8267	8278	8288	8298	31.23

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 3 OF 4
C7-1000

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WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8308	8319	8329	8339	8349	8360	8370	8380	8391	8401	8411	8421	31.59
49	8432	8442	8452	8463	8473	8483	8493	8504	8514	8524	8534	8545	31.95
50	8555	8565	8576	8586	8596	8606	8617	8627	8637	8647	8658	8668	32.32
51	8678	8689	8699	8709	8719	8730	8735	8740	8745	8750	8755	8761	32.70
52	8766	8771	8776	8781	8786	8791							32.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 8625.79 BARRELS VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 4 OF 4
C7-1000

367

WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.40	2.85	4.30	5.74	7.19	8.64	10.09	11.53	12.98	14.43	15.87	17.32	8.53
1	18.77	20.21	21.66	23.11	24.56	26.00	27.45	28.90	30.34	31.79	33.24	34.68	8.94
2	36.70	38.73	40.76	42.79	44.82	46.85	48.88	50.91	52.94	54.97	57.00	59.03	9.35
3	61.06	63.09	65.12	67.15	69.18	71.21	73.24	75.27	77.30	79.33	81.36	83.39	9.86
4	85.55	87.71	89.87	92.03	94.19	96.35	98.51	100.67	102.83	104.99	107.15	109.31	10.37
5	111.47	113.63	115.79	117.95	120.11	122.28	124.44	126.60	128.76	130.92	133.08	135.24	10.89
6	137.49	139.75	142.01	144.26	146.52	148.77	151.03	153.29	155.54	157.80	160.06	162.31	11.41
7	164.57	166.83	169.08	171.34	173.60	175.85	178.11	180.36	182.62	184.88	187.13	189.39	11.94
8	191.71	194.04	196.36	198.69	201.01	203.33	205.66	207.98	210.31	212.63	214.96	217.28	12.46
9	219.60	221.93	224.25	226.58	228.90	231.23	233.55	235.87	238.20	240.52	242.85	245.17	12.99
10	247.54	249.91	252.28	254.65	257.02	259.39	261.76	264.12	266.49	268.86	271.23	273.60	13.52
11	275.97	278.34	280.71	283.08	285.45	287.82	290.19	292.56	294.93	297.29	299.66	302.03	14.04
12	304.43	306.82	309.22	311.61	314.01	316.40	318.80	321.19	323.59	325.98	328.38	330.77	14.56
13	333.17	335.57	337.96	340.36	342.75	345.15	347.54	349.94	352.33	354.73	357.12	359.52	15.08
14	361.92	364.33	366.73	369.14	371.54	373.95	376.35	378.76	381.17	383.57	385.98	388.38	15.61
15	390.79	393.19	395.60	398.00	400.41	402.81	405.22	407.62	410.03	412.44	414.84	417.25	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 1 OF 4
C7-1000

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WATERMAN LASH — SOUNDING TABLE — #3 WING FO TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	419.65	422.06	424.46	426.87	429.28	431.68	434.09	436.50	438.90	441.31	443.71	446.12	16.64
17	448.53	450.93	453.34	455.75	458.15	460.56	462.96	465.37	467.78	470.18	472.59	475.00	17.15
18	477.40	479.81	482.21	484.62	487.03	489.43	491.84	494.25	496.65	499.06	501.46	503.87	17.67
19	506.28	508.68	511.09	513.50	515.90	518.31	520.71	523.12	525.53	527.93	530.34	532.75	18.18
20	535.15	537.56	539.96	542.37	544.78	547.18	549.59	552.00	554.40	556.81	559.21	561.62	18.69
21	564.03	566.43	568.84	571.25	573.65	576.06	578.46	580.87	583.28	585.68	588.09	590.50	19.19
22	592.90	595.30	597.70	600.10	602.50	604.90	607.30	609.70	612.10	614.50	616.90	619.30	19.70
23	621.71	624.11	626.51	628.91	631.31	633.71	636.11	638.51	640.91	643.31	645.71	648.11	20.21
24	650.40	652.67	654.95	657.23	659.51	661.79	664.07	666.34	668.62	670.90	673.18	675.46	20.71
25	677.73	680.01	682.29	684.57	686.85	689.13	691.40	693.68	695.96	698.24	700.52	702.79	21.19
26	705.07	707.35	709.63	711.91	714.19	716.46	718.74	721.02	723.30	725.58	727.86	730.13	21.67
27	732.41	734.69	736.97	739.25	741.52	743.80	746.08	748.36	750.64	752.92	755.19	757.47	22.16
28	759.75	762.03	764.31	766.59	768.86	771.14	773.42	775.70	777.98	780.25	782.53	784.81	22.64
29	787.09	789.37	791.65	793.92	796.20	798.48	800.76	803.04	805.31	807.59	809.87	812.15	23.13
30	814.43	816.71	818.98	821.26	823.54	825.82	828.10	830.38	832.65	834.93	837.21	839.49	23.61
31	841.77	844.04	846.32	848.60	850.88	853.16	855.44	857.71	859.99	862.27	864.55	866.83	24.10

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.
LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.
SHEET 2 OF 4
C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 47

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	869.10	871.38	873.66	875.94	878.22	880.50	882.77	885.05	887.33	889.61	891.89	894.16	24.59
33	896.44	898.72	901.00	903.28	905.56	907.83	910.11	912.39	914.67	916.95	919.23	921.50	25.08
34	923.78	926.06	928.34	930.62	932.89	935.17	937.45	939.73	942.01	944.29	946.56	948.84	25.57
35	951.12	953.40	955.68	957.95	960.23	962.51	964.79	967.07	969.35	971.62	973.90	976.18	26.06
36	978.46	980.74	983.01	985.29	987.57	989.85	992.13	994.41	996.68	998.96	1001.24	1003.52	26.55
37	1005.80	1008.07	1010.35	1012.63	1014.91	1017.19	1019.47	1021.74	1024.02	1026.30	1028.58	1030.86	27.04
38	1033.14	1035.41	1037.69	1039.97	1042.25	1044.53	1046.80	1049.08	1051.36	1053.64	1055.92	1058.19	27.53
39	1060.47	1062.75	1065.03	1067.31	1069.59	1071.86	1074.14	1076.42	1078.70	1080.98	1083.26	1085.53	28.02
40	1087.81	1090.09	1092.37	1094.65	1096.92	1099.20	1101.48	1103.76	1106.04	1108.32	1110.59	1112.87	28.51
41	1115.15	1117.43	1119.71	1121.98	1124.26	1126.54	1128.28	1130.00	1131.71	1133.43	1135.15	1136.87	29.01
42	1138.59	1140.31	1142.03	1143.75	1145.47	1147.19	1148.91	1150.63	1152.34	1154.06	1155.78	1157.50	29.43
43	1159.22	1160.94	1162.66	1164.38	1166.10	1167.82	1169.37	1170.92	1172.47	1174.02	1175.57	1177.12	29.81
44	1178.67	1180.22	1181.77	1183.32	1184.87	1186.42	1187.97	1189.52	1191.07	1192.62	1194.17	1195.72	30.17
45	1197.27	1198.82	1200.37	1201.92	1203.47	1205.02	1206.57	1208.12	1209.67	1211.22	1212.77	1214.32	30.52
46	1215.87	1217.42	1218.97	1220.52	1222.07	1223.61	1225.16	1226.71	1228.26	1229.81	1231.36	1232.91	30.87
47	1234.46	1236.01	1237.56	1239.11	1240.66	1242.21	1243.76	1245.31	1246.86	1248.41	1249.96	1251.51	31.23

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	432.33	434.74	437.14	439.55	441.95	444.36	446.77	449.17	451.58	453.99	456.39	458.80	16.86
17	461.20	463.61	466.02	468.42	470.83	473.24	475.64	478.05	480.45	482.86	485.27	487.67	17.38
18	490.08	492.49	494.89	497.30	499.70	502.11	504.52	506.92	509.33	511.74	514.14	516.55	17.89
19	518.95	521.36	523.77	526.17	528.58	530.98	533.39	535.80	538.20	540.61	543.02	545.42	18.40
20	547.83	550.23	552.64	555.05	557.45	559.86	562.27	564.67	567.08	569.49	571.89	574.30	18.91
21	576.70	579.11	581.52	583.92	586.33	588.73	591.14	593.55	595.95	598.36	600.77	603.17	19.42
22	605.56	607.93	610.30	612.68	615.05	617.43	619.80	622.18	624.55	626.92	629.30	631.67	19.92
23	634.05	636.42	638.80	641.17	643.54	645.92	648.29	650.67	653.04	655.42	657.79	660.16	20.42
24	662.47	664.75	667.03	669.30	671.58	673.86	676.14	678.42	680.69	682.97	685.25	687.53	20.92
25	689.81	692.09	694.36	696.64	698.92	701.20	703.48	705.75	708.03	710.31	712.59	714.87	21.40
26	717.15	719.42	721.70	723.98	726.26	728.54	730.82	733.09	735.37	737.65	739.93	742.21	21.89
27	744.48	746.76	749.04	751.32	753.60	755.88	758.15	760.43	762.71	764.99	767.27	769.55	22.37
28	771.82	774.10	776.38	778.66	780.94	783.21	785.49	787.77	790.05	792.33	794.61	796.88	22.85
29	799.16	801.44	803.72	806.00	808.28	810.55	812.83	815.11	817.39	819.67	821.94	824.22	23.34
30	826.50	828.78	831.06	833.34	835.61	837.89	840.17	842.45	844.73	847.00	849.28	851.56	23.83
31	853.84	856.12	858.40	860.67	862.95	865.23	867.51	869.79	872.06	874.34	876.62	878.90	24.31

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1253.06	1254.61	1256.16	1257.71	1259.26	1260.81	1262.36	1263.91	1265.46	1267.01	1268.56	1270.11	31.59
49	1271.66	1273.21	1274.76	1276.31	1277.86	1279.41	1280.96	1282.51	1284.06	1285.61	1287.16	1288.71	31.95
50	1290.26	1291.81	1293.36	1294.91	1296.46	1298.01	1299.55	1301.10	1302.65	1304.20	1305.75	1307.30	32.32
51	1308.85	1310.40	1311.95	1313.50	1315.05	1316.60	1317.40	1318.17	1318.95	1319.72	1320.49	1321.27	32.70
52	1322.04	1322.81	1323.59	1324.36	1325.13	1325.90							32.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 50 FT. 6 7/8 IN CAP. = 1300.94 F.O.LTON VCG = 32.54 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.37	3.27	5.17	7.07	8.97	10.87	12.77	14.67	16.57	18.47	20.37	22.27	8.53
1	24.16	26.06	27.96	29.86	31.76	33.66	35.56	37.46	39.36	41.26	43.16	45.06	9.04
2	47.08	49.14	51.21	53.27	55.33	57.40	59.46	61.53	63.59	65.65	67.72	69.78	9.55
3	71.84	73.91	75.97	78.04	80.10	82.16	84.23	86.29	88.35	90.42	92.48	94.55	10.07
4	96.70	98.88	101.07	103.25	105.44	107.62	109.81	112.00	114.18	116.37	118.55	120.74	10.59
5	122.92	125.11	127.29	129.48	131.66	133.85	136.04	138.22	140.41	142.59	144.78	146.96	11.11
6	149.21	151.49	153.76	156.04	158.31	160.59	162.86	165.13	167.41	169.68	171.96	174.23	11.64
7	176.51	178.78	181.05	183.33	185.60	187.88	190.15	192.43	194.70	196.98	199.25	201.52	12.16
8	203.84	206.18	208.52	210.85	213.19	215.53	217.86	220.20	222.54	224.87	227.21	229.55	12.69
9	231.88	234.22	236.56	238.89	241.23	243.57	245.90	248.24	250.57	252.91	255.25	257.58	13.22
10	259.95	262.33	264.70	267.08	269.46	271.83	274.21	276.59	278.97	281.34	283.72	286.10	13.74
11	288.47	290.85	293.23	295.60	297.98	300.36	302.74	305.11	307.49	309.87	312.24	314.62	14.27
12	317.01	319.41	321.81	324.21	326.61	329.01	331.41	333.80	336.20	338.60	341.00	343.40	14.79
13	345.80	348.20	350.60	352.99	355.39	357.79	360.19	362.59	364.99	367.39	369.79	372.18	15.31
14	374.59	376.99	379.40	381.81	384.21	386.62	389.02	391.43	393.84	396.24	398.65	401.05	15.83
15	403.46	405.86	408.27	410.68	413.08	415.49	417.89	420.30	422.71	425.11	427.52	429.92	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	9	22	34	47	59	72	85	97	110	122	135	148	8.53
1	160	173	185	198	211	223	236	248	261	274	286	299	9.04
2	312	326	340	353	367	381	394	408	422	435	449	463	9.55
3	476	490	504	517	531	545	558	572	586	600	613	627	10.07
4	641	656	670	685	699	714	728	743	757	772	786	801	10.59
5	815	830	844	859	873	887	902	916	931	945	960	974	11.11
6	989	1004	1020	1035	1050	1065	1080	1095	1110	1125	1140	1155	11.64
7	1170	1185	1200	1216	1231	1246	1261	1276	1291	1306	1321	1336	12.16
8	1352	1367	1383	1398	1414	1429	1445	1460	1476	1491	1507	1522	12.69
9	1537	1553	1568	1584	1599	1615	1630	1646	1661	1677	1692	1708	13.22
10	1724	1739	1755	1771	1787	1802	1818	1834	1850	1865	1881	1897	13.74
11	1913	1928	1944	1960	1976	1992	2007	2023	2039	2055	2070	2086	14.27
12	2102	2118	2134	2150	2166	2181	2197	2213	2229	2245	2261	2277	14.79
13	2293	2309	2325	2341	2356	2372	2388	2404	2420	2436	2452	2468	15.31
14	2484	2500	2516	2532	2547	2563	2579	2595	2611	2627	2643	2659	15.83
15	2675	2691	2707	2723	2739	2755	2771	2787	2803	2819	2835	2851	16.35

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8363	8373	8383	8394	8404	8414	8424	8435	8445	8455	8465	8476	31.75
49	8486	8496	8507	8517	8527	8537	8548	8558	8568	8578	8589	8599	32.12
50	8609	8620	8630	8640	8650	8661	8671	8681	8692	8702	8712	8722	32.49
51	8733	8743	8753	8763	8774	8784	8790	8796	8801				32.86

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2867	2882	2898	2914	2930	2946	2962	2978	2994	3010	3026	3042	16.86
17	3058	3074	3090	3106	3122	3138	3154	3170	3186	3202	3218	3233	17.38
18	3249	3265	3281	3297	3313	3329	3345	3361	3377	3393	3409	3425	17.89
19	3441	3457	3473	3489	3505	3521	3537	3553	3569	3584	3600	3616	18.40
20	3632	3648	3664	3680	3696	3712	3728	3744	3760	3776	3792	3808	18.91
21	3824	3840	3856	3872	3888	3904	3920	3935	3951	3967	3983	3999	19.42
22	4015	4031	4047	4062	4078	4094	4110	4125	4141	4157	4173	4188	19.92
23	4204	4220	4236	4251	4267	4283	4298	4314	4330	4346	4361	4377	20.42
24	4392	4408	4423	4438	4453	4468	4483	4498	4513	4528	4544	4559	20.92
25	4574	4589	4604	4619	4634	4649	4664	4679	4695	4710	4725	4740	21.40
26	4755	4770	4785	4800	4815	4831	4846	4861	4876	4891	4906	4921	21.89
27	4936	4951	4966	4982	4997	5012	5027	5042	5057	5072	5087	5102	22.37
28	5118	5133	5148	5163	5178	5193	5208	5223	5238	5253	5269	5284	22.85
29	5299	5314	5329	5344	5359	5374	5389	5405	5420	5435	5450	5465	23.34
30	5480	5495	5510	5525	5540	5556	5571	5586	5601	5616	5631	5646	23.83
31	5661	5676	5692	5707	5722	5737	5752	5767	5782	5797	5812	5828	24.31

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5843	5858	5873	5888	5903	5918	5933	5948	5963	5979	5994	6009	24.80
33	6024	6039	6054	6069	6084	6099	6115	6130	6145	6160	6175	6190	25.29
34	6205	6220	6235	6250	6266	6281	6296	6311	6326	6341	6356	6371	25.78
35	6386	6402	6417	6432	6447	6462	6477	6492	6507	6522	6537	6553	26.27
36	6568	6583	6598	6613	6628	6643	6658	6673	6689	6704	6719	6734	26.76
37	6749	6764	6779	6794	6809	6824	6840	6855	6870	6885	6900	6915	27.25
38	6930	6945	6960	6976	6991	7006	7021	7036	7051	7066	7081	7096	27.75
39	7111	7127	7142	7157	7172	7187	7202	7217	7232	7247	7263	7278	28.24
40	7293	7308	7323	7338	7353	7368	7383	7398	7414	7429	7444	7459	28.73
41	7474	7489	7504	7519	7534	7550	7561	7571	7582	7592	7602	7613	29.22
42	7623	7633	7643	7654	7664	7674	7684	7695	7705	7715	7726	7736	29.63
43	7746	7756	7767	7777	7787	7798	7808	7818	7828	7839	7849	7859	29.97
44	7869	7880	7890	7900	7911	7921	7931	7941	7952	7962	7972	7982	30.32
45	7993	8003	8013	8024	8034	8044	8054	8065	8075	8085	8096	8106	30.67
46	8116	8126	8137	8147	8157	8167	8178	8188	8198	8209	8219	8229	31.03
47	8239	8250	8260	8270	8280	8291	8301	8311	8322	8332	8342	8352	31.38

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	881.18	883.46	885.73	888.01	890.29	892.57	894.85	897.13	899.40	901.68	903.96	906.24	24.80
33	908.52	910.79	913.07	915.35	917.63	919.91	922.19	924.46	926.74	929.02	931.30	933.58	25.29
34	935.85	938.13	940.41	942.69	944.97	947.25	949.52	951.80	954.08	956.36	958.64	960.91	25.78
35	963.19	965.47	967.75	970.03	972.31	974.58	976.86	979.14	981.42	983.70	985.97	988.25	26.27
36	990.53	992.81	995.09	997.37	999.64	1001.92	1004.20	1006.48	1008.76	1011.03	1013.31	1015.59	26.76
37	1017.87	1020.15	1022.43	1024.70	1026.98	1029.26	1031.54	1033.82	1036.09	1038.37	1040.65	1042.93	27.25
38	1045.21	1047.49	1049.76	1052.04	1054.32	1056.60	1058.88	1061.16	1063.43	1065.71	1067.99	1070.27	27.75
39	1072.55	1074.82	1077.10	1079.38	1081.66	1083.94	1086.22	1088.49	1090.77	1093.05	1095.33	1097.61	28.24
40	1099.88	1102.16	1104.44	1106.72	1109.00	1111.28	1113.55	1115.83	1118.11	1120.39	1122.67	1124.94	28.73
41	1127.22	1129.50	1131.78	1134.06	1136.34	1138.61	1140.37	1141.92	1143.47	1145.02	1146.57	1148.12	29.22
42	1149.67	1151.22	1152.77	1154.32	1155.87	1157.42	1158.97	1160.52	1162.07	1163.62	1165.16	1166.71	29.63
43	1168.26	1169.81	1171.36	1172.91	1174.46	1176.01	1177.56	1179.11	1180.66	1182.21	1183.76	1185.31	29.97
44	1186.86	1188.41	1189.96	1191.51	1193.06	1194.61	1196.16	1197.71	1199.26	1200.81	1202.36	1203.91	30.32
45	1205.46	1207.01	1208.56	1210.11	1211.66	1213.21	1214.76	1216.31	1217.86	1219.41	1220.96	1222.51	30.67
46	1224.06	1225.61	1227.16	1228.71	1230.26	1231.81	1233.36	1234.91	1236.46	1238.01	1239.56	1241.10	31.03
47	1242.65	1244.20	1245.75	1247.30	1248.85	1250.40	1251.95	1253.50	1255.05	1256.60	1258.15	1259.70	31.38

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1261.25	1262.80	1264.35	1265.90	1267.45	1269.00	1270.55	1272.10	1273.65	1275.20	1276.75	1278.30	31.75
49	1279.85	1281.40	1282.95	1284.50	1286.05	1287.60	1289.15	1290.70	1292.25	1293.80	1295.35	1296.90	32.12
50	1298.45	1300.00	1301.55	1303.10	1304.65	1306.20	1307.75	1309.30	1310.85	1312.40	1313.95	1315.49	32.49
51	1317.04	1318.59	1320.14	1321.69	1323.24	1324.79	1325.77	1326.53	1327.29				32.86

TANK 100 PERCENT FULL SOUNDING = 51 FT. 8 2/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	9	20	32	43	54	65	76	87	98	109	120	131	8.53
1	142	153	165	176	187	198	209	220	231	242	253	264	8.98
2	278	291	305	318	332	345	359	373	386	400	413	427	9.44
3	440	454	468	481	495	508	522	535	549	563	576	590	9.96
4	604	618	633	647	662	676	690	705	719	734	748	763	10.47
5	777	791	806	820	835	849	863	878	892	907	921	935	11.00
6	950	965	980	995	1010	1025	1041	1056	1071	1086	1101	1116	11.52
7	1131	1146	1161	1176	1191	1206	1221	1236	1251	1266	1281	1296	12.05
8	1311	1327	1342	1358	1373	1389	1404	1419	1435	1450	1466	1481	12.58
9	1497	1512	1528	1543	1559	1574	1589	1605	1620	1636	1651	1667	13.10
10	1682	1698	1714	1730	1745	1761	1777	1793	1808	1824	1840	1855	13.63
11	1871	1887	1903	1918	1934	1950	1966	1981	1997	2013	2029	2044	14.15
12	2060	2076	2092	2108	2124	2140	2156	2171	2187	2203	2219	2235	14.68
13	2251	2267	2283	2299	2314	2330	2346	2362	2378	2394	2410	2426	15.20
14	2442	2458	2474	2490	2505	2521	2537	2553	2569	2585	2601	2617	15.72
15	2633	2649	2665	2681	2697	2713	2729	2745	2761	2777	2793	2809	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2825	2840	2856	2872	2888	2904	2920	2936	2952	2968	2984	3000	16.75
17	3016	3032	3048	3064	3080	3096	3112	3128	3144	3160	3176	3191	17.26
18	3207	3223	3239	3255	3271	3287	3303	3319	3335	3351	3367	3383	17.78
19	3399	3415	3431	3447	3463	3479	3495	3511	3527	3542	3558	3574	18.29
20	3590	3606	3622	3638	3654	3670	3686	3702	3718	3734	3750	3766	18.80
21	3782	3798	3814	3830	3846	3862	3878	3893	3909	3925	3941	3957	19.30
22	3973	3989	4005	4021	4036	4052	4068	4084	4100	4116	4131	4147	19.81
23	4163	4179	4195	4211	4226	4242	4258	4274	4290	4306	4321	4337	20.31
24	4352	4368	4383	4398	4413	4428	4443	4458	4473	4488	4503	4519	20.82
25	4534	4549	4564	4579	4594	4609	4624	4639	4655	4670	4685	4700	21.30
26	4715	4730	4745	4760	4775	4791	4806	4821	4836	4851	4866	4881	21.78
27	4896	4911	4926	4942	4957	4972	4987	5002	5017	5032	5047	5062	22.26
28	5078	5093	5108	5123	5138	5153	5168	5183	5198	5213	5229	5244	22.75
29	5259	5274	5289	5304	5319	5334	5349	5365	5380	5395	5410	5425	23.23
30	5440	5455	5470	5485	5500	5516	5531	5546	5561	5576	5591	5606	23.72
31	5621	5636	5652	5667	5682	5697	5712	5727	5742	5757	5772	5787	24.21

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	425.99	428.40	430.80	433.21	435.62	438.02	440.43	442.83	445.24	447.65	450.05	452.46	16.75
17	454.87	457.27	459.68	462.08	464.49	466.90	469.30	471.71	474.12	476.52	478.93	481.33	17.26
18	483.74	486.15	488.55	490.96	493.37	495.77	498.18	500.58	502.99	505.40	507.80	510.21	17.78
19	512.62	515.02	517.43	519.83	522.24	524.65	527.05	529.46	531.86	534.27	536.68	539.08	18.29
20	541.49	543.90	546.30	548.71	551.12	553.52	555.93	558.33	560.74	563.15	565.55	567.96	18.80
21	570.37	572.77	575.18	577.58	579.99	582.40	584.80	587.21	589.62	592.02	594.43	596.83	19.30
22	599.22	601.61	604.00	606.39	608.77	611.16	613.55	615.94	618.32	620.71	623.10	625.49	19.81
23	627.87	630.26	632.65	635.04	637.42	639.81	642.20	644.59	646.97	649.36	651.75	654.14	20.31
24	656.43	658.71	660.99	663.27	665.54	667.82	670.10	672.38	674.66	676.94	679.21	681.49	20.82
25	683.77	686.05	688.33	690.61	692.88	695.16	697.44	699.72	702.00	704.27	706.55	708.83	21.30
26	711.11	713.39	715.67	717.94	720.22	722.50	724.78	727.06	729.33	731.61	733.89	736.17	21.78
27	738.45	740.73	743.00	745.28	747.56	749.84	752.12	754.40	756.67	758.95	761.23	763.51	22.26
28	765.79	768.07	770.34	772.62	774.90	777.18	779.46	781.73	784.01	786.29	788.57	790.85	22.75
29	793.13	795.40	797.68	799.96	802.24	804.52	806.79	809.07	811.35	813.63	815.91	818.19	23.23
30	820.46	822.74	825.02	827.30	829.58	831.85	834.13	836.41	838.69	840.97	843.25	845.52	23.72
31	847.80	850.08	852.36	854.64	856.92	859.19	861.47	863.75	866.03	868.31	870.58	872.86	24.21

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.41	3.08	4.76	6.43	8.10	9.77	11.44	13.12	14.79	16.46	18.13	19.80	8.53
1	21.48	23.15	24.82	26.49	28.16	29.83	31.51	33.18	34.85	36.52	38.19	39.87	8.98
2	41.85	43.90	45.95	48.00	50.04	52.09	54.14	56.19	58.23	60.28	62.33	64.37	9.44
3	66.42	68.47	70.52	72.56	74.61	76.66	78.71	80.75	82.80	84.85	86.89	88.94	9.96
4	91.10	93.27	95.44	97.62	99.79	101.96	104.14	106.31	108.48	110.66	112.83	115.00	10.47
5	117.18	119.35	121.52	123.70	125.87	128.04	130.22	132.39	134.56	136.74	138.91	141.08	11.00
6	143.33	145.60	147.87	150.13	152.40	154.66	156.93	159.19	161.46	163.73	165.99	168.26	11.52
7	170.52	172.79	175.05	177.32	179.59	181.85	184.12	186.38	188.65	190.91	193.18	195.44	12.05
8	197.77	200.10	202.43	204.76	207.09	209.42	211.75	214.08	216.41	218.74	221.07	223.40	12.58
9	225.73	228.06	230.39	232.73	235.06	237.39	239.72	242.05	244.38	246.71	249.04	251.37	13.10
10	253.74	256.11	258.48	260.86	263.23	265.60	267.98	270.35	272.72	275.10	277.47	279.84	13.63
11	282.22	284.59	286.96	289.34	291.71	294.08	296.46	298.83	301.20	303.58	305.95	308.32	14.15
12	310.72	313.11	315.51	317.91	320.30	322.70	325.10	327.50	329.89	332.29	334.69	337.08	14.68
13	339.48	341.88	344.28	346.67	349.07	351.47	353.86	356.26	358.66	361.06	363.45	365.85	15.20
14	368.25	370.66	373.06	375.47	377.88	380.28	382.69	385.09	387.50	389.90	392.31	394.72	15.72
15	397.12	399.53	401.93	404.34	406.74	409.15	411.56	413.96	416.37	418.77	421.18	423.58	16.23

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8336	8346	8356	8366	8377	8387	8397	8407	8418	8428	8438	8449	31.67
49	8459	8469	8479	8490	8500	8510	8520	8531	8541	8551	8562	8572	32.04
50	8582	8592	8603	8613	8623	8634	8644	8654	8664	8675	8685	8695	32.41
51	8705	8716	8726	8736	8747	8757	8763	8768	8773	8778	8783	8788	32.78
52	8793	8799											33.05

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5803	5818	5833	5848	5863	5878	5893	5908	5923	5939	5954	5969	24.70
33	5984	5999	6014	6029	6044	6059	6074	6090	6105	6120	6135	6150	25.18
34	6165	6180	6195	6210	6226	6241	6256	6271	6286	6301	6316	6331	25.67
35	6346	6361	6377	6392	6407	6422	6437	6452	6467	6482	6497	6513	26.16
36	6528	6543	6558	6573	6588	6603	6618	6633	6648	6664	6679	6694	26.66
37	6709	6724	6739	6754	6769	6784	6800	6815	6830	6845	6860	6875	27.15
38	6890	6905	6920	6935	6951	6966	6981	6996	7011	7026	7041	7056	27.64
39	7071	7087	7102	7117	7132	7147	7162	7177	7192	7207	7222	7238	28.13
40	7253	7268	7283	7298	7313	7328	7343	7358	7374	7389	7404	7419	28.62
41	7434	7449	7464	7479	7494	7510	7521	7532	7543	7554	7564	7575	29.12
42	7586	7597	7608	7619	7629	7640	7651	7662	7673	7684	7694	7705	29.53
43	7716	7727	7738	7749	7759	7770	7781	7791	7801	7811	7822	7832	29.89
44	7842	7853	7863	7873	7883	7894	7904	7914	7924	7935	7945	7955	30.24
45	7966	7976	7986	7996	8007	8017	8027	8038	8048	8058	8068	8079	30.59
46	8089	8099	8109	8120	8130	8140	8151	8161	8171	8181	8192	8202	30.95
47	8212	8222	8233	8243	8253	8264	8274	8284	8294	8305	8315	8325	31.31

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 49

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	875.14	877.42	879.70	881.98	884.25	886.53	888.61	891.09	893.37	895.64	897.92	900.20	24.70
33	902.48	904.76	907.04	909.31	911.59	913.87	916.15	918.43	920.70	922.98	925.26	927.54	25.18
34	929.82	932.10	934.37	936.65	938.93	941.21	943.49	945.77	948.04	950.32	952.60	954.88	25.67
35	957.16	959.43	961.71	963.99	966.27	968.55	970.83	973.10	975.38	977.66	979.94	982.22	26.16
36	984.49	986.77	989.05	991.33	993.61	995.89	998.16	1000.44	1002.72	1005.00	1007.28	1009.55	26.66
37	1011.83	1014.11	1016.39	1018.67	1020.95	1023.22	1025.50	1027.78	1030.06	1032.34	1034.61	1036.89	27.15
38	1039.17	1041.45	1043.73	1046.01	1048.28	1050.56	1052.84	1055.12	1057.40	1059.68	1061.95	1064.23	27.64
39	1066.51	1068.79	1071.07	1073.34	1075.62	1077.90	1080.18	1082.46	1084.74	1087.01	1089.29	1091.57	28.13
40	1093.85	1096.13	1098.40	1100.68	1102.96	1105.24	1107.52	1109.80	1112.07	1114.35	1116.63	1118.91	28.62
41	1121.19	1123.46	1125.74	1128.02	1130.30	1132.58	1134.31	1135.95	1137.58	1139.22	1140.85	1142.48	29.12
42	1144.12	1145.75	1147.39	1149.02	1150.66	1152.29	1153.93	1155.56	1157.19	1158.83	1160.46	1162.10	29.53
43	1163.73	1165.37	1167.00	1168.64	1170.27	1171.90	1173.47	1175.02	1176.57	1178.12	1179.67	1181.22	29.89
44	1182.77	1184.32	1185.87	1187.42	1188.97	1190.52	1192.07	1193.61	1195.16	1196.71	1198.26	1199.81	30.24
45	1201.36	1202.91	1204.46	1206.01	1207.56	1209.11	1210.66	1212.21	1213.76	1215.31	1216.86	1218.41	30.59
46	1219.96	1221.51	1223.06	1224.61	1226.16	1227.71	1229.26	1230.81	1232.36	1233.91	1235.46	1237.01	30.95
47	1238.56	1240.11	1241.66	1243.21	1244.76	1246.31	1247.86	1249.41	1250.96	1252.51	1254.06	1255.61	31.31

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 3 OF 4

C7-1000

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1257.16	1258.71	1260.26	1261.81	1263.36	1264.91	1266.46	1268.01	1269.55	1271.10	1272.65	1274.20	31.67
49	1275.75	1277.30	1278.85	1280.40	1281.95	1283.50	1285.05	1286.60	1288.15	1289.70	1291.25	1292.80	32.04
50	1294.35	1295.90	1297.45	1299.00	1300.55	1302.10	1303.65	1305.20	1306.75	1308.30	1309.85	1311.40	32.41
51	1312.95	1314.50	1316.05	1317.60	1319.15	1320.70	1321.59	1322.36	1323.13	1323.90	1324.67	1325.44	32.78
52	1326.21	1326.98											33.05

TANK 100 PERCENT FULL SOUNDING = 52 FT. 1 5/8 IN CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 4 OF 4

C7-1000

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	9	19	28	38	48	57	67	76	86	96	105	115	8.53
1	124	134	144	153	163	172	182	192	201	211	220	230	8.94
2	243	257	270	284	297	311	324	338	351	364	378	391	9.35
3	405	418	432	445	459	472	486	499	513	526	539	553	9.86
4	567	582	596	610	625	639	653	667	682	696	710	725	10.37
5	739	753	768	782	796	811	825	839	854	868	882	897	10.89
6	912	927	942	957	971	986	1001	1016	1031	1046	1061	1076	11.41
7	1091	1106	1121	1136	1151	1166	1181	1196	1211	1226	1241	1256	11.94
8	1271	1287	1302	1317	1333	1348	1364	1379	1394	1410	1425	1441	12.46
9	1456	1471	1487	1502	1518	1533	1549	1564	1579	1595	1610	1626	12.99
10	1641	1657	1673	1688	1704	1720	1736	1751	1767	1783	1798	1814	13.52
11	1830	1846	1861	1877	1893	1908	1924	1940	1955	1971	1987	2003	14.04
12	2018	2034	2050	2066	2082	2098	2114	2130	2146	2161	2177	2193	14.56
13	2209	2225	2241	2257	2273	2288	2304	2320	2336	2352	2368	2384	15.08
14	2400	2416	2432	2448	2464	2479	2495	2511	2527	2543	2559	2575	15.61
15	2591	2607	2623	2639	2655	2671	2687	2703	2719	2735	2751	2767	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 1 OF 4

C7-1000

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	2782	2798	2814	2830	2846	2862	2878	2894	2910	2926	2942	2958	16.64
17	2974	2990	3006	3022	3038	3054	3070	3086	3102	3118	3133	3149	17.15
18	3165	3181	3197	3213	3229	3245	3261	3277	3293	3309	3325	3341	17.67
19	3357	3373	3389	3405	3421	3437	3453	3469	3484	3500	3516	3532	18.18
20	3548	3564	3580	3596	3612	3628	3644	3660	3676	3692	3708	3724	18.69
21	3740	3756	3772	3788	3804	3820	3835	3851	3867	3883	3899	3915	19.19
22	3931	3947	3963	3979	3995	4011	4027	4043	4059	4074	4090	4106	19.70
23	4122	4138	4154	4170	4186	4202	4218	4234	4250	4265	4281	4297	20.21
24	4312	4328	4343	4358	4373	4388	4403	4418	4433	4448	4463	4479	20.71
25	4494	4509	4524	4539	4554	4569	4584	4599	4615	4630	4645	4660	21.19
26	4675	4690	4705	4720	4735	4750	4766	4781	4796	4811	4826	4841	21.67
27	4856	4871	4886	4902	4917	4932	4947	4962	4977	4992	5007	5022	22.16
28	5037	5053	5068	5083	5098	5113	5128	5143	5158	5173	5189	5204	22.64
29	5219	5234	5249	5264	5279	5294	5309	5324	5340	5355	5370	5385	23.13
30	5400	5415	5430	5445	5460	5476	5491	5506	5521	5536	5551	5566	23.61
31	5581	5596	5612	5627	5642	5657	5672	5687	5702	5717	5732	5747	24.10

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 2 OF 4

C7-1000

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	419.65	422.06	424.46	426.87	429.28	431.68	434.09	436.50	438.90	441.31	443.71	446.12	16.64
17	448.53	450.93	453.34	455.75	458.15	460.56	462.96	465.37	467.78	470.18	472.59	475.00	17.15
18	477.40	479.81	482.21	484.62	487.03	489.43	491.84	494.25	496.65	499.06	501.46	503.87	17.67
19	506.28	508.68	511.09	513.50	515.90	518.31	520.71	523.12	525.53	527.93	530.34	532.75	18.18
20	535.15	537.56	539.96	542.37	544.78	547.18	549.59	552.00	554.40	556.81	559.21	561.62	18.69
21	564.03	566.43	568.84	571.25	573.65	576.06	578.46	580.87	583.28	585.68	588.09	590.50	19.19
22	592.90	595.30	597.70	600.10	602.50	604.90	607.30	609.70	612.10	614.50	616.90	619.30	19.70
23	621.71	624.11	626.51	628.91	631.31	633.71	636.11	638.51	640.91	643.31	645.71	648.11	20.21
24	650.40	652.67	654.95	657.23	659.51	661.79	664.07	666.34	668.62	670.90	673.18	675.46	20.71
25	677.73	680.01	682.29	684.57	686.85	689.13	691.40	693.68	695.96	698.24	700.52	702.79	21.19
26	705.07	707.35	709.63	711.91	714.19	716.46	718.74	721.02	723.30	725.58	727.86	730.13	21.67
27	732.41	734.69	736.97	739.25	741.52	743.80	746.08	748.36	750.64	752.92	755.19	757.47	22.16
28	759.75	762.03	764.31	766.59	768.86	771.14	773.42	775.70	777.98	780.25	782.53	784.81	22.64
29	787.09	789.37	791.65	793.92	796.20	798.48	800.76	803.04	805.31	807.59	809.87	812.15	23.13
30	814.43	816.71	818.98	821.26	823.54	825.82	828.10	830.38	832.65	834.93	837.21	839.49	23.61
31	841.77	844.04	846.32	848.60	850.88	853.16	855.44	857.71	859.99	862.27	864.55	866.83	24.10

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 2 OF 4

C7-1000

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.40	2.85	4.30	5.74	7.19	8.64	10.09	11.53	12.98	14.43	15.87	17.32	8.53
1	18.77	20.21	21.66	23.11	24.56	26.00	27.45	28.90	30.34	31.79	33.24	34.68	8.94
2	36.70	38.73	40.76	42.79	44.82	46.85	48.88	50.91	52.94	54.97	57.00	59.03	9.35
3	61.06	63.09	65.12	67.15	69.18	71.21	73.24	75.27	77.30	79.33	81.36	83.39	9.86
4	85.55	87.71	89.87	92.03	94.19	96.35	98.51	100.67	102.83	104.99	107.15	109.31	10.37
5	111.47	113.63	115.79	117.95	120.11	122.28	124.44	126.60	128.76	130.92	133.08	135.24	10.89
6	137.49	139.75	142.01	144.26	146.52	148.77	151.03	153.29	155.54	157.80	160.06	162.31	11.41
7	164.57	166.83	169.08	171.34	173.60	175.85	178.11	180.36	182.62	184.88	187.13	189.39	11.94
8	191.71	194.04	196.36	198.69	201.01	203.33	205.66	207.98	210.31	212.63	214.96	217.28	12.46
9	219.60	221.93	224.25	226.58	228.90	231.23	233.55	235.87	238.20	240.52	242.85	245.17	12.99
10	247.54	249.91	252.28	254.65	257.02	259.39	261.76	264.12	266.49	268.86	271.23	273.60	13.52
11	275.97	278.34	280.71	283.08	285.45	287.82	290.19	292.56	294.93	297.29	299.66	302.03	14.04
12	304.43	306.82	309.22	311.61	314.01	316.40	318.80	321.19	323.59	325.98	328.38	330.77	14.56
13	333.17	335.57	337.96	340.36	342.75	345.15	347.54	349.94	352.33	354.73	357.12	359.52	15.08
14	361.92	364.33	366.73	369.14	371.54	373.95	376.35	378.76	381.17	383.57	385.98	388.38	15.61
15	390.79	393.19	395.60	398.00	400.41	402.81	405.22	407.62	410.03	412.44	414.84	417.25	16.12

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 1 OF 4

C7-1000

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8308	8319	8329	8339	8349	8360	8370	8380	8391	8401	8411	8421	31.59
49	8432	8442	8452	8463	8473	8483	8493	8504	8514	8524	8534	8545	31.95
50	8555	8565	8576	8586	8596	8606	8617	8627	8637	8647	8658	8668	32.32
51	8678	8689	8699	8709	8719	8730	8735	8740	8745	8750	8755	8761	32.70
52	8766	8771	8776	8781	8786	8791							32.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 4 OF 4

C7-1000

SOUNDING TABLE

WATERMAN LASH — 3 WING FO TANK S — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 73-79 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5763	5778	5793	5808	5823	5838	5853	5868	5883	5899	5914	5929	24.59
33	5944	5959	5974	5989	6004	6019	6034	6050	6065	6080	6095	6110	25.08
34	6125	6140	6155	6170	6186	6201	6216	6231	6246	6261	6276	6291	25.57
35	6306	6321	6337	6352	6367	6382	6397	6412	6427	6442	6457	6473	26.06
36	6488	6503	6518	6533	6548	6563	6578	6593	6608	6624	6639	6654	26.55
37	6669	6684	6699	6714	6729	6744	6760	6775	6790	6805	6820	6835	27.04
38	6850	6865	6880	6895	6911	6926	6941	6956	6971	6986	7001	7016	27.53
39	7031	7047	7062	7077	7092	7107	7122	7137	7152	7167	7182	7198	28.02
40	7213	7228	7243	7258	7273	7288	7303	7318	7334	7349	7364	7379	28.51
41	7394	7409	7424	7439	7454	7469	7481	7492	7504	7515	7527	7538	29.01
42	7549	7561	7572	7584	7595	7606	7618	7629	7641	7652	7663	7675	29.43
43	7686	7698	7709	7720	7732	7743	7753	7764	7774	7784	7795	7805	29.81
44	7815	7825	7836	7846	7856	7867	7877	7887	7897	7908	7918	7928	30.17
45	7938	7949	7959	7969	7980	7990	8000	8010	8021	8031	8041	8051	30.52
46	8062	8072	8082	8093	8103	8113	8123	8134	8144	8154	8165	8175	30.87
47	8185	8195	8206	8216	8226	8236	8247	8257	8267	8278	8288	8298	31.23

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 8801.83 BARRELS VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 52.440 FT. SHEET 3 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.50

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	869.10	871.38	873.66	875.94	878.22	880.50	882.77	885.05	887.33	889.61	891.89	894.16	24.59
33	896.44	898.72	901.00	903.28	905.56	907.83	910.11	912.39	914.67	916.95	919.23	921.50	25.08
34	923.78	926.06	928.34	930.62	932.89	935.17	937.45	939.73	942.01	944.29	946.56	948.84	25.57
35	951.12	953.40	955.68	957.95	960.23	962.51	964.79	967.07	969.35	971.62	973.90	976.18	26.06
36	978.46	980.74	983.01	985.29	987.57	989.85	992.13	994.41	996.68	998.96	1001.24	1003.52	26.55
37	1005.80	1008.07	1010.35	1012.63	1014.91	1017.19	1019.47	1021.74	1024.02	1026.30	1028.58	1030.86	27.04
38	1033.14	1035.41	1037.69	1039.97	1042.25	1044.53	1046.80	1049.08	1051.36	1053.64	1055.92	1058.19	27.53
39	1060.47	1062.75	1065.03	1067.31	1069.59	1071.86	1074.14	1076.42	1078.70	1080.98	1083.26	1085.53	28.02
40	1087.81	1090.09	1092.37	1094.65	1096.92	1099.20	1101.48	1103.76	1106.04	1108.32	1110.59	1112.87	28.51
41	1115.15	1117.43	1119.71	1121.98	1124.26	1126.54	1128.28	1130.00	1131.71	1133.43	1135.15	1136.87	29.01
42	1138.59	1140.31	1142.03	1143.75	1145.47	1147.19	1148.91	1150.63	1152.34	1154.06	1155.78	1157.50	29.43
43	1159.22	1160.94	1162.66	1164.38	1166.10	1167.82	1169.37	1170.92	1172.47	1174.02	1175.57	1177.12	29.81
44	1178.67	1180.22	1181.77	1183.32	1184.87	1186.42	1187.97	1189.52	1191.07	1192.62	1194.17	1195.72	30.17
45	1197.27	1198.82	1200.37	1201.92	1203.47	1205.02	1206.57	1208.12	1209.67	1211.22	1212.77	1214.32	30.52
46	1215.87	1217.42	1218.97	1220.52	1222.07	1223.61	1225.16	1226.71	1228.26	1229.81	1231.36	1232.91	30.87
47	1234.46	1236.01	1237.56	1239.11	1240.66	1242.21	1243.76	1245.31	1246.86	1248.41	1249.96	1251.51	31.23

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

3 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-79 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1253.06	1254.61	1256.16	1257.71	1259.26	1260.81	1262.36	1263.91	1265.46	1267.01	1268.56	1270.11	31.59
49	1271.66	1273.21	1274.76	1276.31	1277.86	1279.41	1280.96	1282.51	1284.06	1285.61	1287.16	1288.71	31.95
50	1290.26	1291.81	1293.36	1294.91	1296.46	1298.01	1299.55	1301.10	1302.65	1304.20	1305.75	1307.30	32.32
51	1308.85	1310.40	1311.95	1313.50	1315.05	1316.60	1317.40	1318.17	1318.95	1319.72	1320.49	1321.27	32.70
52	1322.04	1322.81	1323.59	1324.36	1325.13	1325.90							32.96

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1327.49 F.O.LTON VCG = 33.07 FT.ABV.B.L.

LOWEST POINT OF TANK 8.500 FT. ABV. B.L. STRIKING PLATE 0.081 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 52.440 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO OVERFLOW TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	15	16	17	18	19	20	21	22	23	24	25	50.53
2	26	27	28	29	30	31	33	34	35	36	37	38	51.03
3	39	40	41	42	43	44	45	46	47	48	49	51	51.53
4	52	53	54	55	56	57	58	59	60	61	62	63	52.03
5	64	65	66	67	69	70	71	72	73	74	75	76	52.53
6	77	78	79	80	81	82	83	84	85	87	88	89	53.03
7	90	91	92	93	94	95	96	97	98	99	100	101	53.53
8	102	103	105	106	107	108	109	110	111	112	113	114	54.03
9	115	116	117	118	119	120	121	123	124	125	126	127	54.53
10	127	128	129										55.02

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO OVERFLOW TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.11	0.27	0.43	0.59	0.75	0.91	1.07	1.23	1.39	1.55	1.71	1.87	50.03
1	2.03	2.19	2.35	2.51	2.67	2.83	2.99	3.15	3.31	3.47	3.63	3.79	50.53
2	3.95	4.11	4.27	4.43	4.59	4.75	4.91	5.07	5.23	5.39	5.55	5.71	51.03
3	5.87	6.02	6.18	6.34	6.50	6.66	6.82	6.98	7.14	7.30	7.46	7.62	51.53
4	7.78	7.94	8.10	8.26	8.42	8.58	8.74	8.90	9.06	9.22	9.38	9.54	52.03
5	9.70	9.86	10.02	10.18	10.34	10.50	10.66	10.82	10.98	11.14	11.30	11.46	52.53
6	11.62	11.77	11.93	12.09	12.25	12.41	12.57	12.73	12.89	13.05	13.21	13.37	53.03
7	13.53	13.69	13.85	14.01	14.17	14.33	14.49	14.65	14.81	14.97	15.13	15.29	53.53
8	15.45	15.61	15.77	15.93	16.09	16.25	16.41	16.57	16.73	16.89	17.05	17.21	54.03
9	17.37	17.52	17.68	17.84	18.00	18.16	18.32	18.48	18.64	18.80	18.96	19.12	54.53
10	19.22	19.30	19.38										55.02

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L. STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

400

WATERMAN LASH

SOUNDING TABLE

#3 WING FO OVERFLOW TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.09	0.25	0.41	0.56	0.72	0.88	1.03	1.19	1.34	1.50	1.66	1.81	50.02
1	1.97	2.12	2.28	2.44	2.59	2.75	2.90	3.06	3.22	3.37	3.53	3.68	50.51
2	3.84	4.00	4.16	4.32	4.48	4.64	4.80	4.96	5.12	5.28	5.44	5.60	51.00
3	5.76	5.92	6.08	6.24	6.40	6.56	6.72	6.88	7.04	7.20	7.36	7.52	51.50
4	7.68	7.84	8.00	8.15	8.31	8.47	8.63	8.79	8.95	9.11	9.27	9.43	52.00
5	9.59	9.75	9.91	10.07	10.23	10.39	10.55	10.71	10.87	11.03	11.19	11.35	52.50
6	11.51	11.67	11.83	11.99	12.15	12.31	12.47	12.63	12.79	12.95	13.11	13.27	53.00
7	13.43	13.59	13.75	13.90	14.06	14.22	14.38	14.54	14.70	14.86	15.02	15.18	53.50
8	15.34	15.50	15.66	15.82	15.98	16.14	16.30	16.46	16.62	16.78	16.94	17.10	54.00
9	17.26	17.42	17.58	17.74	17.90	18.06	18.22	18.38	18.54	18.70	18.86	19.02	54.50
10	19.13	19.21	19.29	19.37									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 3/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 11 INCHES CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L. STRIKING PLATE 0.051 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO OVERFLOW TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.02
1	13	14	15	16	17	18	19	20	21	22	23	24	50.51
2	25	27	28	29	30	31	32	33	34	35	36	37	51.00
3	38	39	40	41	42	43	45	46	47	48	49	50	51.50
4	51	52	53	54	55	56	57	58	59	60	61	63	52.00
5	64	65	66	67	68	69	70	71	72	73	74	75	52.50
6	76	77	78	79	81	82	83	84	85	86	87	88	53.00
7	89	90	91	92	93	94	95	96	97	99	100	101	53.50
8	102	103	104	105	106	107	108	109	110	111	112	113	54.00
9	114	115	117	118	119	120	121	122	123	124	125	126	54.50
10	127	127	128	128									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 3/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 11 INCHES CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L. STRIKING PLATE 0.051 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO OVERFLOW TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.10	0.26	0.42	0.58	0.74	0.89	1.05	1.21	1.37	1.53	1.68	1.84	50.03
1	2.00	2.16	2.32	2.47	2.63	2.79	2.95	3.10	3.26	3.42	3.58	3.74	50.52
2	3.90	4.06	4.21	4.37	4.53	4.69	4.85	5.01	5.17	5.33	5.49	5.65	51.02
3	5.81	5.97	6.13	6.29	6.45	6.61	6.77	6.93	7.09	7.25	7.41	7.57	51.52
4	7.73	7.89	8.05	8.21	8.37	8.53	8.69	8.85	9.01	9.17	9.33	9.49	52.02
5	9.65	9.81	9.96	10.12	10.28	10.44	10.60	10.76	10.92	11.08	11.24	11.40	52.52
6	11.56	11.72	11.88	12.04	12.20	12.36	12.52	12.68	12.84	13.00	13.16	13.32	53.02
7	13.48	13.64	13.80	13.96	14.12	14.28	14.44	14.60	14.76	14.92	15.08	15.24	53.52
8	15.40	15.56	15.71	15.87	16.03	16.19	16.35	16.51	16.67	16.83	16.99	17.15	54.02
9	17.31	17.47	17.63	17.79	17.95	18.11	18.27	18.43	18.59	18.75	18.91	19.07	54.52
10	19.18	19.26	19.34										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 6/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 5/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L. STRIKING PLATE 0.055 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#3 WING FO OVERFLOW TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	14	15	16	17	18	20	21	22	23	24	25	50.52
2	26	27	28	29	30	31	32	33	34	35	36	37	51.02
3	39	40	41	42	43	44	45	46	47	48	49	50	51.52
4	51	52	53	54	55	57	58	59	60	61	62	63	52.02
5	64	65	66	67	68	69	70	71	72	73	75	76	52.52
6	77	78	79	80	81	82	83	84	85	86	87	88	53.02
7	89	90	91	93	94	95	96	97	98	99	100	101	53.52
8	102	103	104	105	106	107	108	109	111	112	113	114	54.02
9	115	116	117	118	119	120	121	122	123	124	125	126	54.52
10	127	128	128										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 6/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 5/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L. STRIKING PLATE 0.055 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

WATERMAN LASH

SOUNDING TABLE

3 WING FO OVERFLOW TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	15	16	17	18	19	20	21	22	23	24	25	50.53
2	26	27	28	29	30	31	33	34	35	36	37	38	51.03
3	39	40	41	42	43	44	45	46	47	48	49	51	51.53
4	52	53	54	55	56	57	58	59	60	61	62	63	52.03
5	64	65	66	67	69	70	71	72	73	74	75	76	52.53
6	77	78	79	80	81	82	83	84	85	87	88	89	53.03
7	90	91	92	93	94	95	96	97	98	99	100	101	53.53
8	102	103	105	106	107	108	109	110	111	112	113	114	54.03
9	115	116	117	118	119	120	121	123	124	125	126	127	54.53
10	127	128	129										55.02

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

WATERMAN LASH

SOUNDING TABLE

3 WING FO OVERFLOW TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.11	0.27	0.43	0.59	0.75	0.91	1.07	1.23	1.39	1.55	1.71	1.87	50.03
1	2.03	2.19	2.35	2.51	2.67	2.83	2.99	3.15	3.31	3.47	3.63	3.79	50.53
2	3.95	4.11	4.27	4.43	4.59	4.75	4.91	5.07	5.23	5.39	5.55	5.71	51.03
3	5.87	6.02	6.18	6.34	6.50	6.66	6.82	6.98	7.14	7.30	7.46	7.62	51.53
4	7.78	7.94	8.10	8.26	8.42	8.58	8.74	8.90	9.06	9.22	9.38	9.54	52.03
5	9.70	9.86	10.02	10.18	10.34	10.50	10.66	10.82	10.98	11.14	11.30	11.46	52.53
6	11.62	11.77	11.93	12.09	12.25	12.41	12.57	12.73	12.89	13.05	13.21	13.37	53.03
7	13.53	13.69	13.85	14.01	14.17	14.33	14.49	14.65	14.81	14.97	15.13	15.29	53.53
8	15.45	15.61	15.77	15.93	16.09	16.25	16.41	16.57	16.73	16.89	17.05	17.21	54.03
9	17.37	17.52	17.68	17.84	18.00	18.16	18.32	18.48	18.64	18.80	18.96	19.12	54.53
10	19.22	19.30	19.38										55.02

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

WATERMAN LASH

SOUNDING TABLE

3 WING FO OVERFLOW TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	14	15	16	17	18	20	21	22	23	24	25	50.52
2	26	27	28	29	30	31	32	33	34	35	36	37	51.02
3	39	40	41	42	43	44	45	46	47	48	49	50	51.52
4	51	52	53	54	55	57	58	59	60	61	62	63	52.02
5	64	65	66	67	68	69	70	71	72	73	75	76	52.52
6	77	78	79	80	81	82	83	84	85	86	87	88	53.02
7	89	90	91	93	94	95	96	97	98	99	100	101	53.52
8	102	103	104	105	106	107	108	109	111	112	113	114	54.02
9	115	116	117	118	119	120	121	122	123	124	125	126	54.52
10	127	128	128										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 6/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 5/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.055 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

WATERMAN LASH

SOUNDING TABLE

3 WING FO OVERFLOW TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.10	0.26	0.42	0.58	0.74	0.89	1.05	1.21	1.37	1.53	1.68	1.84	50.03
1	2.00	2.16	2.32	2.47	2.63	2.79	2.95	3.10	3.26	3.42	3.58	3.74	50.52
2	3.90	4.06	4.21	4.37	4.53	4.69	4.85	5.01	5.17	5.33	5.49	5.65	51.02
3	5.81	5.97	6.13	6.29	6.45	6.61	6.77	6.93	7.09	7.25	7.41	7.57	51.52
4	7.73	7.89	8.05	8.21	8.37	8.53	8.69	8.85	9.01	9.17	9.33	9.49	52.02
5	9.65	9.81	9.96	10.12	10.28	10.44	10.60	10.76	10.92	11.08	11.24	11.40	52.52
6	11.56	11.72	11.88	12.04	12.20	12.36	12.52	12.68	12.84	13.00	13.16	13.32	53.02
7	13.48	13.64	13.80	13.96	14.12	14.28	14.44	14.60	14.76	14.92	15.08	15.24	53.52
8	15.40	15.56	15.71	15.87	16.03	16.19	16.35	16.51	16.67	16.83	16.99	17.15	54.02
9	17.31	17.47	17.63	17.79	17.95	18.11	18.27	18.43	18.59	18.75	18.91	19.07	54.52
10	19.18	19.26	19.34										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 6/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 5/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.055 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

WATERMAN LASH

SOUNDING TABLE

3 WING FO OVERFLOW TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.02
1	13	14	15	16	17	18	19	20	21	22	23	24	50.51
2	25	27	28	29	30	31	32	33	34	35	36	37	51.00
3	38	39	40	41	42	43	45	46	47	48	49	50	51.50
4	51	52	53	54	55	56	57	58	59	60	61	63	52.00
5	64	65	66	67	68	69	70	71	72	73	74	75	52.50
6	76	77	78	79	81	82	83	84	85	86	87	88	53.00
7	89	90	91	92	93	94	95	96	97	99	100	101	53.50
8	102	103	104	105	106	107	108	109	110	111	112	113	54.00
9	114	115	117	118	119	120	121	122	123	124	125	126	54.50
10	127	127	128	128									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 3/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 11 INCHES CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.051 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

WATERMAN LASH

SOUNDING TABLE

3 WING FO OVERFLOW TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 73-73-3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.09	0.25	0.41	0.56	0.72	0.88	1.03	1.19	1.34	1.50	1.66	1.81	50.02
1	1.97	2.12	2.28	2.44	2.59	2.75	2.90	3.06	3.22	3.37	3.53	3.68	50.51
2	3.84	4.00	4.16	4.32	4.48	4.64	4.80	4.96	5.12	5.28	5.44	5.60	51.00
3	5.76	5.92	6.08	6.24	6.40	6.56	6.72	6.88	7.04	7.20	7.36	7.52	51.50
4	7.68	7.84	8.00	8.15	8.31	8.47	8.63	8.79	8.95	9.11	9.27	9.43	52.00
5	9.59	9.75	9.91	10.07	10.23	10.39	10.55	10.71	10.87	11.03	11.19	11.35	52.50
6	11.51	11.67	11.83	11.99	12.15	12.31	12.47	12.63	12.79	12.95	13.11	13.27	53.00
7	13.43	13.59	13.75	13.90	14.06	14.22	14.38	14.54	14.70	14.86	15.02	15.18	53.50
8	15.34	15.50	15.66	15.82	15.98	16.14	16.30	16.46	16.62	16.78	16.94	17.10	54.00
9	17.26	17.42	17.58	17.74	17.90	18.06	18.22	18.38	18.54	18.70	18.86	19.02	54.50
10	19.13	19.21	19.29	19.37									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 3/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 11 INCHES CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.051 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	10	10	11	12	12	13	13	14	15	16	20	23	4.98
1	27	30	33	37	40	44	47	51	54	57	61	64	5.70
2	68	71	74	78	81	85	88	91	95	100	107	115	6.42
3	123	130	138	146	153	161	168	176	184	191	199	207	7.14
4	214	222	229	237	245	252	260	268	275	285	297	310	7.86
5	323	336	349	362	375	388	401	413	426	439	452	465	8.58
6	478	490	503	516	529	542	554	567	580	594	613	631	9.29
7	650	669	688	706	725	744	762	781	800	819	837	856	10.00
8	875	894	913	932	951	969	988	1007	1026	1046	1070	1095	10.71
9	1120	1145	1170	1195	1220	1245	1270	1295	1320	1345	1370	1395	11.42
10	1420	1445	1470	1495	1520	1544	1569	1594	1619	1645	1674	1704	12.12
11	1733	1763	1792	1821	1851	1880	1910	1939	1969	1998	2028	2057	12.81
12	2086	2116	2145	2175	2204	2234	2263	2293	2322	2352	2384	2416	13.48
13	2448	2480	2512	2544	2576	2608	2640	2672	2704	2737	2769	2801	14.13
14	2833	2865	2897	2929	2961	2993	3025	3057	3089	3119	3127	3136	14.76
15	3144	3152	3161	3169	3177	3186	3194	3202	3211	3219	3227	3236	15.27

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.042 FT. ABV. B.L.

STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 1 OF 4

C7-1000

WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	3244	3252	3261	3269	3277	3286	3294	3302	3310	3319	3327	3336	15.44
17	3344	3352	3361	3369	3378	3386	3394	3403	3411	3420	3428	3437	15.63
18	3445	3453	3462	3470	3479	3487	3495	3504	3512	3521	3530	3540	15.84
19	3550	3560	3569	3579	3589	3599	3608	3618	3628	3637	3647	3657	16.07
20	3667	3676	3686	3696	3706	3715	3725	3735	3744	3754	3765	3776	16.36
21	3787	3798	3809	3820	3831	3842	3853	3864	3875	3886	3897	3908	16.65
22	3919	3930	3941	3952	3963	3974	3985	3996	4007	4018	4030	4042	17.00
23	4055	4067	4079	4091	4103	4115	4127	4139	4151	4163	4175	4187	17.36
24	4199	4211	4223	4235	4247	4259	4271	4283	4295	4307	4320	4333	17.75
25	4346	4359	4371	4384	4397	4410	4423	4436	4448	4461	4474	4487	18.16
26	4500	4513	4526	4538	4551	4564	4577	4590	4603	4616	4629	4643	18.59
27	4656	4670	4683	4697	4710	4724	4737	4751	4764	4778	4791	4805	19.03
28	4818	4832	4845	4859	4872	4886	4899	4913	4926	4940	4953	4967	19.50
29	4980	4993	5007	5020	5034	5047	5060	5074	5087	5101	5114	5127	19.96
30	5141	5154	5167	5181	5194	5208	5221	5234	5248	5261	5275	5289	20.43
31	5302	5316	5329	5343	5357	5370	5384	5398	5411	5425	5438	5452	20.89

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.042 FT. ABV. B.L.

STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 2 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 52

409

SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5466	5479	5493	5507	5520	5534	5547	5561	5575	5588	5602	5616	21.37
33	5630	5644	5658	5672	5686	5700	5714	5728	5742	5756	5770	5784	21.85
34	5798	5812	5826	5840	5854	5868	5882	5896	5910	5924	5938	5952	22.34
35	5967	5981	5995	6009	6024	6038	6052	6066	6081	6095	6109	6123	22.83
36	6138	6152	6166	6180	6195	6209	6223	6237	6252	6266	6280	6295	23.33
37	6309	6324	6338	6353	6367	6381	6396	6410	6425	6439	6454	6468	23.84
38	6483	6497	6512	6526	6541	6555	6570	6584	6598	6613	6628	6642	24.34
39	6657	6671	6686	6701	6715	6730	6745	6759	6774	6789	6803	6818	24.85
40	6832	6847	6862	6876	6891	6906	6920	6935	6949	6964	6979	6994	25.37
41	7008	7023	7038	7053	7067	7082	7097	7112	7126	7141	7156	7171	25.88
42	7186	7200	7215	7230	7245	7259	7274	7289	7304	7318	7333	7348	26.39
43	7363	7378	7393	7407	7422	7437	7452	7467	7482	7497	7511	7526	26.91
44	7541	7556	7571	7586	7601	7615	7630	7645	7660	7671	7680	7689	27.43
45	7698	7707	7716	7725	7734	7744	7753	7762	7771	7780	7789	7798	27.89
46	7807	7816	7825	7834	7843	7852	7861	7870	7879	7888	7897	7906	28.20
47	7915	7924	7933	7943	7952	7961	7970	7979	7988	7997	8006	8015	28.53

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.042 FT. ABV. B.L.
STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 3 OF 4
C7-1000

410

SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8024	8033	8042	8052	8061	8070	8079	8088	8097	8106	8115	8124	28.86
49	8133	8142	8152	8161	8170	8179	8188	8197	8206	8215	8224	8234	29.19
50	8243	8252	8261	8270	8279	8288	8297	8306	8316	8325	8334	8343	29.53
51	8352	8361	8370	8380	8389	8398	8407	8416	8425	8434	8443	8453	29.88
52	8462	8471	8480	8489	8498	8507	8517	8526	8535	8544	8553	8562	30.22
53	8571	8581	8590	8599	8608	8617	8626	8636	8645	8654	8663	8672	30.58
54	8681	8690	8700	8709	8718	8727	8736	8745	8755	8761	8765	8770	30.93

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.042 FT. ABV. B.L.
STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 4 OF 4
C7-1000

411

SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.46	1.55	1.64	1.74	1.83	1.93	2.02	2.11	2.21	2.49	3.00	3.51	4.98
1	4.03	4.54	5.05	5.57	6.08	6.59	7.11	7.62	8.13	8.65	9.16	9.67	5.70
2	10.19	10.70	11.21	11.73	12.24	12.75	13.27	13.78	14.29	15.05	16.20	17.35	6.42
3	18.50	19.65	20.80	21.96	23.11	24.26	25.41	26.56	27.71	28.86	30.01	31.16	7.14
4	32.31	33.46	34.61	35.75	36.90	38.05	39.20	40.35	41.50	42.92	44.86	46.80	7.86
5	48.75	50.69	52.63	54.58	56.52	58.46	60.40	62.35	64.29	66.23	68.17	70.11	8.58
6	72.04	73.97	75.90	77.83	79.76	81.69	83.62	85.55	87.48	89.59	92.41	95.23	9.29
7	98.05	100.87	103.69	106.51	109.33	112.15	114.97	117.79	120.61	123.45	126.29	129.14	10.00
8	131.98	134.83	137.67	140.52	143.37	146.21	149.06	151.90	154.75	157.69	161.45	165.21	10.71
9	168.97	172.74	176.50	180.26	184.02	187.79	191.55	195.31	199.07	202.84	206.60	210.36	11.42
10	214.12	217.89	221.65	225.41	229.17	232.94	236.70	240.46	244.22	248.05	252.49	256.94	12.12
11	261.38	265.82	270.26	274.70	279.14	283.59	288.03	292.47	296.91	301.35	305.79	310.23	12.81
12	314.68	319.12	323.56	328.00	332.44	336.88	341.33	345.77	350.21	354.69	359.53	364.36	13.48
13	369.20	374.03	378.87	383.71	388.54	393.38	398.22	403.05	407.89	412.73	417.56	422.40	14.13
14	427.24	432.07	436.91	441.75	446.58	451.42	456.25	461.09	465.93	470.41	471.66	472.92	14.76
15	474.17	475.43	476.69	477.94	479.20	480.45	481.71	482.96	484.22	485.47	486.73	487.99	15.27

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.042 FT. ABV. B.L.
STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 1 OF 4
C7-1000

412

SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	489.24	490.50	491.75	493.01	494.26	495.52	496.77	498.03	499.29	500.54	501.81	503.08	15.44
17	504.35	505.61	506.88	508.15	509.42	510.68	511.95	513.22	514.49	515.76	517.02	518.29	15.63
18	519.56	520.83	522.09	523.36	524.63	525.90	527.17	528.43	529.70	530.99	532.46	533.92	15.84
19	535.39	536.86	538.33	539.79	541.26	542.73	544.20	545.66	547.13	548.60	550.07	551.53	16.07
20	553.00	554.47	555.94	557.40	558.87	560.34	561.81	563.27	564.74	566.23	567.89	569.55	16.36
21	571.20	572.86	574.52	576.18	577.84	579.50	581.16	582.82	584.48	586.13	587.79	589.45	16.65
22	591.11	592.77	594.43	596.09	597.75	599.40	601.06	602.72	604.38	606.06	607.87	609.68	17.00
23	611.50	613.31	615.12	616.94	618.75	620.57	622.38	624.19	626.01	627.82	629.63	631.45	17.36
24	633.26	635.07	636.89	638.70	640.52	642.33	644.14	645.96	647.77	649.60	651.53	653.47	17.75
25	655.41	657.35	659.29	661.22	663.16	665.10	667.04	668.97	670.91	672.85	674.79	676.72	18.16
26	678.66	680.60	682.54	684.48	686.41	688.35	690.29	692.23	694.16	696.11	698.15	700.19	18.59
27	702.22	704.26	706.30	708.34	710.38	712.41	714.45	716.49	718.53	720.57	722.60	724.64	19.03
28	726.68	728.72	730.76	732.79	734.83	736.87	738.91	740.94	742.98	745.02	747.04	749.06	19.50
29	751.08	753.10	755.12	757.14	759.16	761.18	763.20	765.22	767.24	769.26	771.28	773.30	19.96
30	775.32	777.34	779.36	781.38	783.40	785.42	787.44	789.46	791.48	793.50	795.55	797.61	20.43
31	799.66	801.72	803.78	805.83	807.89	809.94	812.00	814.05	816.11	818.16	820.22	822.28	20.89

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.042 FT. ABV. B.L.
STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 2 OF 4
C7-1000

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SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	3254	3265	3276	3287	3296	3304	3313	3321	3330	3338	3346	3355	15.46
17	3363	3371	3380	3388	3396	3405	3413	3422	3430	3438	3447	3455	15.67
18	3463	3472	3480	3489	3498	3507	3517	3526	3536	3546	3555	3565	15.88
19	3574	3584	3594	3603	3613	3622	3632	3641	3651	3661	3670	3680	16.13
20	3689	3699	3709	3718	3729	3739	3750	3761	3772	3783	3794	3805	16.41
21	3816	3827	3837	3848	3859	3870	3881	3892	3903	3914	3924	3935	16.73
22	3946	3957	3968	3979	3990	4002	4014	4026	4038	4050	4062	4074	17.07
23	4086	4098	4110	4122	4134	4146	4157	4169	4181	4193	4205	4217	17.44
24	4229	4241	4253	4265	4277	4290	4303	4316	4328	4341	4354	4367	17.83
25	4379	4392	4405	4418	4431	4443	4456	4469	4482	4494	4507	4520	18.25
26	4533	4545	4558	4571	4584	4598	4611	4625	4638	4651	4665	4678	18.68
27	4692	4705	4719	4732	4746	4759	4772	4786	4799	4813	4826	4840	19.14
28	4853	4867	4880	4894	4907	4920	4934	4947	4960	4974	4987	5000	19.60
29	5014	5027	5040	5054	5067	5081	5094	5107	5121	5134	5147	5161	20.06
30	5174	5187	5201	5214	5228	5241	5255	5268	5282	5296	5309	5323	20.52
31	5336	5350	5363	5377	5391	5404	5418	5431	5445	5459	5472	5486	20.99

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 2 OF 4
C7-1000

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SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	6	7	7	8	10	13	16	18	21	24	27	29	4.98
1	32	35	38	40	43	46	49	51	54	57	59	62	5.72
2	65	68	70	73	80	86	93	100	107	114	121	128	6.46
3	135	141	148	155	162	169	176	183	190	196	203	210	7.19
4	217	224	231	238	249	261	273	285	298	310	322	334	7.93
5	346	358	370	383	395	407	419	431	443	456	468	480	8.66
6	492	504	516	528	545	563	581	599	617	635	653	671	9.39
7	690	708	726	744	762	780	798	816	834	853	871	889	10.11
8	907	926	944	962	984	1009	1033	1058	1082	1107	1131	1156	10.83
9	1180	1205	1229	1254	1278	1303	1327	1352	1376	1401	1425	1450	11.55
10	1474	1499	1523	1548	1575	1604	1633	1662	1692	1721	1750	1779	12.26
11	1808	1837	1866	1895	1925	1954	1983	2012	2041	2070	2099	2128	12.94
12	2158	2187	2216	2245	2276	2308	2341	2373	2405	2437	2470	2502	13.62
13	2534	2567	2599	2631	2664	2696	2728	2761	2793	2825	2858	2890	14.27
14	2922	2955	2987	3019	3039	3050	3060	3071	3082	3093	3104	3114	14.91
15	3125	3136	3147	3157	3168	3179	3190	3201	3211	3222	3233	3244	15.24

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 1 OF 4
C7-1000

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SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1210.21	1211.58	1212.95	1214.32	1215.69	1217.06	1218.43	1219.80	1221.17	1222.54	1223.92	1225.29	28.86
49	1226.66	1228.04	1229.41	1230.79	1232.16	1233.54	1234.91	1236.28	1237.66	1239.03	1240.41	1241.78	29.19
50	1243.16	1244.53	1245.91	1247.28	1248.65	1250.03	1251.40	1252.78	1254.15	1255.53	1256.91	1258.28	29.53
51	1259.66	1261.04	1262.42	1263.80	1265.17	1266.55	1267.93	1269.31	1270.68	1272.06	1273.44	1274.82	29.88
52	1276.20	1277.57	1278.95	1280.33	1281.71	1283.08	1284.46	1285.84	1287.22	1288.60	1289.98	1291.36	30.22
53	1292.74	1294.12	1295.50	1296.88	1298.26	1299.64	1301.02	1302.40	1303.78	1305.17	1306.55	1307.93	30.58
54	1309.31	1310.69	1312.07	1313.45	1314.83	1316.21	1317.59	1318.97	1320.35	1321.31	1321.99	1322.66	30.93

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.042 FT. ABV. B.L.
STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 4 OF 4
C7-1000

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SOUNDING TABLE

WATERMAN LASH — #6 WING FO TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	824.33	826.39	828.44	830.50	832.55	834.61	836.66	838.72	840.77	842.83	844.94	847.05	21.37
33	849.16	851.27	853.37	855.48	857.59	859.69	861.80	863.91	866.02	868.12	870.23	872.34	21.85
34	874.45	876.55	878.66	880.77	882.88	884.98	887.09	889.20	891.31	893.42	895.57	897.72	22.34
35	899.87	902.01	904.16	906.31	908.46	910.61	912.76	914.91	917.06	919.21	921.36	923.51	22.83
36	925.65	927.80	929.95	932.10	934.25	936.40	938.55	940.70	942.85	945.00	947.18	949.36	23.33
37	951.54	953.73	955.91	958.09	960.27	962.45	964.63	966.82	969.00	971.18	973.36	975.54	23.84
38	977.72	979.90	982.09	984.27	986.45	988.63	990.81	992.99	995.18	997.36	999.57	1001.77	24.34
39	1003.98	1006.19	1008.39	1010.60	1012.81	1015.01	1017.22	1019.43	1021.63	1023.84	1026.05	1028.26	24.85
40	1030.46	1032.67	1034.88	1037.08	1039.29	1041.50	1043.70	1045.91	1048.12	1050.33	1052.55	1054.78	25.37
41	1057.00	1059.23	1061.46	1063.68	1065.91	1068.13	1070.36	1072.59	1074.81	1077.04	1079.26	1081.49	25.88
42	1083.71	1085.94	1088.17	1090.39	1092.62	1094.84	1097.07	1099.30	1101.52	1103.75	1105.99	1108.23	26.39
43	1110.47	1112.71	1114.95	1117.19	1119.43	1121.67	1123.91	1126.15	1128.39	1130.63	1132.87	1135.11	26.91
44	1137.35	1139.59	1141.83	1144.07	1146.31	1148.55	1150.79	1153.03	1155.27	1156.97	1158.34	1159.70	27.43
45	1161.06	1162.42	1163.79	1165.15	1166.51	1167.87	1169.23	1170.60	1171.96	1173.32	1174.68	1176.05	27.89
46	1177.41	1178.77	1180.13	1181.49	1182.86	1184.22	1185.58	1186.94	1188.30	1189.67	1191.04	1192.41	28.20
47	1193.78	1195.15	1196.52	1197.89	1199.26	1200.63	1202.00	1203.37	1204.74	1206.10	1207.47	1208.84	28.53

TANK 100 PERCENT FULL SOUNDING = 54 FT. 11 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 53 FT. 2 5/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.
LOWEST POINT OF TANK 4.042 FT. ABV. B.L.
STRIKING PLATE 1.288 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.
SHEET 3 OF 4
C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 53

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5499	5513	5527	5540	5554	5568	5582	5596	5610	5624	5638	5652	21.47
33	5666	5679	5693	5707	5721	5735	5749	5763	5777	5791	5805	5819	21.95
34	5833	5847	5861	5875	5889	5903	5917	5931	5946	5960	5974	5988	22.44
35	6003	6017	6031	6045	6059	6074	6088	6102	6116	6131	6145	6159	22.94
36	6173	6188	6202	6216	6230	6245	6259	6274	6288	6303	6317	6331	23.44
37	6346	6360	6375	6389	6404	6418	6433	6447	6462	6476	6490	6505	23.94
38	6519	6534	6548	6563	6577	6592	6606	6621	6636	6650	6665	6680	24.45
39	6694	6709	6723	6738	6753	6767	6782	6796	6811	6826	6840	6855	24.96
40	6870	6884	6899	6913	6928	6943	6958	6972	6987	7002	7017	7031	25.47
41	7046	7061	7076	7090	7105	7120	7135	7149	7164	7179	7194	7208	25.99
42	7223	7238	7253	7267	7282	7297	7312	7327	7342	7356	7371	7386	26.50
43	7401	7416	7431	7446	7460	7475	7490	7505	7520	7535	7549	7564	27.02
44	7579	7594	7609	7623	7633	7643	7653	7663	7673	7682	7692	7702	27.54
45	7712	7722	7732	7742	7751	7761	7771	7781	7791	7801	7811	7821	27.93
46	7830	7840	7850	7860	7869	7878	7887	7896	7905	7914	7924	7933	28.27
47	7942	7951	7960	7969	7978	7987	7996	8005	8014	8023	8032	8042	28.61

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8051	8060	8069	8078	8087	8096	8105	8114	8123	8133	8142	8151	28.94
49	8160	8169	8178	8187	8196	8205	8215	8224	8233	8242	8251	8260	29.27
50	8269	8278	8287	8297	8306	8315	8324	8333	8342	8351	8360	8370	29.61
51	8379	8388	8397	8406	8415	8424	8434	8443	8452	8461	8470	8479	29.96
52	8488	8498	8507	8516	8525	8534	8543	8552	8562	8571	8580	8589	30.31
53	8598	8607	8616	8626	8635	8644	8653	8662	8671	8681	8690	8699	30.66
54	8708	8717	8726	8735	8740	8744	8749	8754	8758	8763	8768		31.02

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.97	1.04	1.10	1.16	1.55	1.96	2.38	2.79	3.20	3.61	4.03	4.44	4.98
1	4.85	5.26	5.67	6.09	6.50	6.91	7.32	7.74	8.15	8.56	8.97	9.39	5.72
2	9.80	10.21	10.62	11.03	12.00	13.04	14.07	15.11	16.15	17.18	18.22	19.26	6.46
3	20.29	21.33	22.37	23.40	24.44	25.48	26.51	27.55	28.59	29.62	30.66	31.70	7.19
4	32.73	33.77	34.81	35.84	37.55	39.38	41.22	43.05	44.88	46.71	48.55	50.38	7.93
5	52.21	54.04	55.88	57.71	59.54	61.38	63.21	65.04	66.87	68.71	70.54	72.36	8.66
6	74.18	76.00	77.82	79.65	82.14	84.87	87.61	90.34	93.07	95.80	98.53	101.26	9.39
7	103.99	106.73	109.46	112.19	114.92	117.65	120.38	123.11	125.85	128.59	131.35	134.10	10.11
8	136.86	139.62	142.37	145.13	148.44	152.14	155.83	159.53	163.22	166.92	170.62	174.31	10.83
9	178.01	181.71	185.40	189.10	192.80	196.49	200.19	203.88	207.58	211.28	214.97	218.67	11.55
10	222.37	226.06	229.76	233.46	237.56	241.95	246.34	250.74	255.13	259.52	263.91	268.30	12.26
11	272.69	277.09	281.48	285.87	290.26	294.65	299.04	303.44	307.83	312.22	316.61	321.00	12.94
12	325.39	329.79	334.18	338.57	343.24	348.12	352.99	357.87	362.74	367.62	372.49	377.37	13.62
13	382.24	387.12	391.99	396.87	401.74	406.62	411.49	416.36	421.24	426.11	430.99	435.86	14.27
14	440.74	445.61	450.49	455.36	458.33	459.95	461.58	463.20	464.83	466.45	468.08	469.70	14.91
15	471.33	472.95	474.58	476.20	477.83	479.45	481.07	482.70	484.32	485.95	487.57	489.20	15.24

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	490.82	492.45	494.07	495.70	497.11	498.37	499.63	500.89	502.16	503.42	504.68	505.94	15.46
17	507.21	508.47	509.73	510.99	512.25	513.52	514.78	516.04	517.30	518.57	519.83	521.09	15.67
18	522.35	523.61	524.88	526.14	527.51	528.96	530.40	531.85	533.29	534.74	536.19	537.63	15.88
19	539.08	540.53	541.97	543.42	544.87	546.31	547.76	549.20	550.65	552.10	553.54	554.99	16.13
20	556.44	557.88	559.33	560.78	562.34	563.98	565.62	567.26	568.90	570.54	572.19	573.83	16.41
21	575.47	577.11	578.75	580.39	582.03	583.68	585.32	586.96	588.60	590.24	591.88	593.52	16.73
22	595.17	596.81	598.45	600.09	601.82	603.62	605.42	607.22	609.02	610.82	612.62	614.42	17.07
23	616.22	618.02	619.82	621.62	623.42	625.22	627.02	628.82	630.62	632.42	634.22	636.02	17.44
24	637.82	639.62	641.42	643.22	645.09	647.02	648.95	650.87	652.80	654.72	656.65	658.58	17.83
25	660.50	662.43	664.36	666.28	668.21	670.13	672.06	673.99	675.91	677.84	679.77	681.69	18.25
26	683.62	685.54	687.47	689.40	691.38	693.41	695.44	697.47	699.50	701.53	703.56	705.58	18.68
27	707.61	709.64	711.67	713.70	715.73	717.76	719.78	721.81	723.84	725.87	727.90	729.93	19.14
28	731.96	733.99	736.01	738.04	740.06	742.08	744.09	746.11	748.12	750.13	752.15	754.16	19.60
29	756.18	758.19	760.20	762.22	764.23	766.25	768.26	770.27	772.29	774.30	776.32	778.33	20.06
30	780.34	782.36	784.37	786.39	788.42	790.47	792.52	794.57	796.62	798.67	800.72	802.77	20.52
31	804.82	806.87	808.92	810.97	813.02	815.07	817.12	819.17	821.22	823.26	825.31	827.36	20.99

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	3281	3290	3298	3307	3315	3323	3332	3340	3348	3357	3365	3373	15.51
17	3382	3390	3399	3407	3415	3424	3432	3440	3449	3457	3466	3475	15.71
18	3484	3494	3503	3513	3522	3532	3541	3551	3560	3569	3579	3588	15.92
19	3598	3607	3617	3626	3636	3645	3654	3664	3673	3683	3692	3703	16.19
20	3714	3725	3735	3746	3757	3768	3778	3789	3800	3811	3821	3832	16.47
21	3843	3854	3865	3875	3886	3897	3908	3918	3929	3940	3951	3963	16.80
22	3974	3986	3998	4010	4022	4034	4045	4057	4069	4081	4093	4105	17.14
23	4116	4128	4140	4152	4164	4176	4187	4199	4211	4223	4235	4248	17.53
24	4260	4273	4286	4298	4311	4324	4336	4349	4362	4375	4387	4400	17.92
25	4413	4425	4438	4451	4463	4476	4489	4501	4514	4527	4540	4553	18.35
26	4566	4580	4593	4607	4620	4633	4647	4660	4674	4687	4700	4714	18.78
27	4727	4740	4754	4767	4781	4794	4807	4821	4834	4848	4861	4874	19.24
28	4888	4901	4914	4928	4941	4954	4967	4981	4994	5007	5021	5034	19.70
29	5047	5061	5074	5087	5101	5114	5127	5141	5154	5167	5180	5194	20.16
30	5208	5221	5235	5248	5262	5275	5289	5302	5316	5330	5343	5357	20.62
31	5370	5384	5397	5411	5424	5438	5451	5465	5479	5492	5506	5520	21.09

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 2 OF 4

C7-1000

423

WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	8	10	12	15	17	19	21	23	25	27	29	31	4.98
1	33	36	38	40	42	44	46	48	50	52	56	62	5.75
2	68	74	80	86	93	99	105	111	117	123	129	135	6.51
3	141	147	154	160	166	172	178	184	190	196	204	216	7.26
4	227	238	250	261	273	284	295	307	318	330	341	352	8.01
5	364	375	387	398	409	421	432	444	455	466	479	497	8.75
6	514	532	549	567	584	602	619	637	654	672	689	707	9.49
7	724	742	759	777	794	812	829	847	864	882	900	924	10.23
8	948	972	996	1020	1044	1068	1092	1117	1141	1165	1189	1213	10.96
9	1237	1261	1285	1309	1333	1357	1381	1405	1429	1453	1478	1506	11.69
10	1535	1564	1593	1622	1650	1679	1708	1737	1765	1794	1823	1852	12.41
11	1881	1909	1938	1967	1996	2024	2053	2082	2111	2140	2169	2201	13.09
12	2233	2265	2297	2329	2361	2393	2425	2457	2489	2521	2553	2585	13.76
13	2617	2649	2681	2714	2746	2778	2810	2842	2874	2906	2937	2950	14.41
14	2964	2978	2991	3005	3019	3032	3046	3060	3073	3087	3101	3114	14.99
15	3128	3142	3156	3169	3183	3197	3210	3224	3238	3251	3265	3273	15.25

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 1 OF 4

C7-1000

422

WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1214.19	1215.56	1216.93	1218.30	1219.67	1221.05	1222.42	1223.79	1225.17	1226.54	1227.92	1229.29	28.94
49	1230.66	1232.04	1233.41	1234.79	1236.16	1237.54	1238.91	1240.28	1241.66	1243.03	1244.41	1245.78	29.27
50	1247.15	1248.53	1249.90	1251.28	1252.66	1254.03	1255.41	1256.79	1258.17	1259.54	1260.92	1262.30	29.61
51	1263.68	1265.05	1266.43	1267.81	1269.19	1270.57	1271.94	1273.32	1274.70	1276.08	1277.45	1278.83	29.96
52	1280.21	1281.59	1282.96	1284.34	1285.72	1287.10	1288.48	1289.86	1291.24	1292.63	1294.01	1295.39	30.31
53	1296.77	1298.15	1299.53	1300.91	1302.29	1303.67	1305.05	1306.43	1307.81	1309.19	1310.57	1311.95	30.66
54	1313.33	1314.71	1316.09	1317.41	1318.11	1318.81	1319.51	1320.22	1320.92	1321.62	1322.32		31.02

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	829.41	831.46	833.51	835.56	837.64	839.75	841.85	843.95	846.06	848.16	850.26	852.36	21.47
33	854.47	856.57	858.67	860.78	862.88	864.98	867.08	869.19	871.29	873.39	875.50	877.60	21.95
34	879.70	881.81	883.91	886.01	888.14	890.28	892.43	894.58	896.72	898.87	901.01	903.16	22.44
35	905.30	907.45	909.60	911.74	913.89	916.03	918.18	920.32	922.47	924.62	926.76	928.91	22.94
36	931.05	933.20	935.34	937.49	939.65	941.83	944.01	946.19	948.37	950.55	952.73	954.91	23.44
37	957.09	959.27	961.44	963.62	965.80	967.98	970.16	972.34	974.52	976.70	978.88	981.06	23.94
38	983.23	985.41	987.59	989.77	991.97	994.17	996.38	998.58	1000.79	1002.99	1005.20	1007.40	24.45
39	1009.60	1011.81	1014.02	1016.22	1018.43	1020.63	1022.83	1025.04	1027.24	1029.45	1031.65	1033.86	24.96
40	1036.06	1038.27	1040.47	1042.68	1044.90	1047.12	1049.34	1051.57	1053.79	1056.02	1058.24	1060.47	25.47
41	1062.69	1064.92	1067.14	1069.37	1071.59	1073.82	1076.04	1078.27	1080.49	1082.72	1084.94	1087.17	25.99
42	1089.39	1091.61	1093.84	1096.06	1098.30	1100.54	1102.77	1105.01	1107.25	1109.49	1111.73	1113.97	26.50
43	1116.21	1118.45	1120.69	1122.93	1125.16	1127.40	1129.64	1131.88	1134.12	1136.36	1138.60	1140.84	27.02
44	1143.08	1145.31	1147.55	1149.72	1151.21	1152.70	1154.19	1155.68	1157.17	1158.65	1160.14	1161.63	27.54
45	1163.12	1164.61	1166.10	1167.59	1169.07	1170.56	1172.05	1173.54	1175.03	1176.52	1178.01	1179.49	27.93
46	1180.98	1182.47	1183.96	1185.44	1186.81	1188.18	1189.55	1190.91	1192.28	1193.65	1195.02	1196.39	28.27
47	1197.76	1199.13	1200.50	1201.87	1203.24	1204.61	1205.97	1207.34	1208.71	1210.08	1211.45	1212.82	28.61

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 6/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 11 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.502 FT. ABV. B.L.
STRIKING PLATE 1.285 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 3 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 54

425

SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5534	5547	5561	5575	5589	5603	5617	5631	5645	5659	5673	5687	21.57
33	5700	5714	5728	5742	5756	5770	5784	5798	5812	5826	5840	5854	22.06
34	5868	5882	5896	5911	5925	5939	5953	5967	5982	5996	6010	6024	22.55
35	6038	6053	6067	6081	6095	6109	6124	6138	6152	6166	6181	6195	23.05
36	6209	6224	6238	6253	6267	6282	6296	6310	6325	6339	6354	6368	23.55
37	6383	6397	6411	6426	6440	6455	6469	6484	6498	6512	6527	6541	24.05
38	6556	6571	6585	6600	6614	6629	6644	6658	6673	6688	6702	6717	24.56
39	6731	6746	6761	6775	6790	6804	6819	6834	6848	6863	6877	6892	25.07
40	6907	6922	6936	6951	6966	6981	6995	7010	7025	7040	7054	7069	25.58
41	7084	7099	7113	7128	7143	7158	7172	7187	7202	7216	7231	7246	26.10
42	7261	7276	7291	7305	7320	7335	7350	7365	7380	7394	7409	7424	26.62
43	7439	7454	7469	7483	7498	7513	7528	7543	7558	7573	7585	7596	27.13
44	7606	7617	7628	7638	7649	7660	7671	7681	7692	7703	7713	7724	27.62
45	7735	7746	7756	7767	7778	7788	7799	7810	7821	7831	7841	7850	27.99
46	7859	7868	7877	7886	7895	7905	7914	7923	7932	7941	7950	7959	28.36
47	7968	7977	7986	7995	8004	8013	8023	8032	8041	8050	8059	8068	28.69

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 3 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8077	8086	8095	8104	8113	8123	8132	8141	8150	8159	8168	8177	29.02
49	8186	8195	8205	8214	8223	8232	8241	8250	8259	8268	8277	8287	29.36
50	8296	8305	8314	8323	8332	8341	8351	8360	8369	8378	8387	8396	29.70
51	8405	8414	8424	8433	8442	8451	8460	8469	8478	8488	8497	8506	30.05
52	8515	8524	8533	8542	8552	8561	8570	8579	8588	8597	8607	8616	30.40
53	8625	8634	8643	8652	8661	8671	8680	8689	8698	8707	8714	8718	30.75
54	8723	8728	8733	8737	8742	8747	8751	8756	8761	8765	8770		31.07

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 8771.53 BARRELS VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 8596.10 BARRELS VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 4 OF 4

C7-1000

427

SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.25	1.57	1.88	2.20	2.52	2.83	3.15	3.46	3.78	4.10	4.41	4.73	4.98
1	5.05	5.36	5.68	6.00	6.31	6.63	6.95	7.26	7.58	7.90	8.44	9.36	5.75
2	10.28	11.20	12.12	13.04	13.96	14.88	15.80	16.72	17.64	18.56	19.48	20.40	6.51
3	21.32	22.24	23.16	24.08	25.00	25.92	26.84	27.76	28.68	29.60	30.80	32.52	7.26
4	34.24	35.96	37.68	39.39	41.11	42.83	44.55	46.27	47.99	49.71	51.42	53.14	8.01
5	54.86	56.58	58.30	60.02	61.74	63.46	65.17	66.89	68.61	70.33	72.31	74.95	8.75
6	77.59	80.23	82.87	85.50	88.14	90.78	93.42	96.06	98.70	101.33	103.97	106.61	9.49
7	109.25	111.89	114.53	117.17	119.80	122.44	125.08	127.72	130.36	133.01	135.75	139.37	10.23
8	143.00	146.63	150.26	153.88	157.51	161.14	164.77	168.40	172.02	175.65	179.28	182.91	10.96
9	186.54	190.16	193.79	197.42	201.05	204.67	208.30	211.93	215.56	219.19	222.87	227.21	11.69
10	231.55	235.89	240.23	244.57	248.91	253.25	257.59	261.93	266.27	270.61	274.95	279.29	12.41
11	283.63	287.97	292.31	296.65	300.99	305.33	309.67	314.01	318.35	322.69	327.07	331.91	13.09
12	336.74	341.57	346.41	351.24	356.08	360.91	365.74	370.58	375.41	380.25	385.08	389.91	13.76
13	394.75	399.58	404.42	409.25	414.08	418.92	423.75	428.59	433.42	438.25	442.88	444.95	14.41
14	447.01	449.08	451.14	453.21	455.27	457.34	459.40	461.46	463.53	465.59	467.66	469.72	14.99
15	471.79	473.85	475.92	477.98	480.05	482.11	484.18	486.24	488.31	490.37	492.38	493.64	15.25

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	494.90	496.16	497.42	498.68	499.95	501.21	502.47	503.73	504.99	506.25	507.52	508.78	15.51
17	510.04	511.30	512.56	513.82	515.09	516.35	517.61	518.87	520.13	521.40	522.67	524.09	15.71
18	525.52	526.94	528.37	529.79	531.22	532.64	534.07	535.49	536.91	538.34	539.76	541.19	15.92
19	542.61	544.04	545.46	546.89	548.31	549.74	551.16	552.58	554.01	555.43	556.87	558.50	16.19
20	560.12	561.74	563.37	564.99	566.61	568.24	569.86	571.48	573.11	574.73	576.36	577.98	16.47
21	579.60	581.23	582.85	584.47	586.10	587.72	589.34	590.97	592.59	594.21	595.85	597.63	16.80
22	599.42	601.21	602.99	604.78	606.56	608.35	610.13	611.92	613.70	615.49	617.27	619.06	17.14
23	620.84	622.63	624.41	626.20	627.98	629.77	631.56	633.34	635.13	636.91	638.71	640.62	17.53
24	642.54	644.45	646.36	648.28	650.19	652.11	654.02	655.94	657.85	659.77	661.68	663.60	17.92
25	665.51	667.42	669.34	671.25	673.17	675.08	677.00	678.91	680.83	682.74	684.66	686.68	18.35
26	688.70	690.72	692.74	694.76	696.78	698.80	700.82	702.84	704.86	706.87	708.89	710.91	18.78
27	712.93	714.95	716.97	718.99	721.01	723.03	725.05	727.07	729.09	731.11	733.12	735.13	19.24
28	737.14	739.15	741.16	743.16	745.17	747.18	749.19	751.20	753.20	755.21	757.22	759.23	19.70
29	761.23	763.24	765.25	767.26	769.27	771.27	773.28	775.29	777.30	779.31	781.32	783.36	20.16
30	785.40	787.45	789.49	791.53	793.58	795.62	797.67	799.71	801.75	803.80	805.84	807.88	20.62
31	809.93	811.97	814.01	816.06	818.10	820.15	822.19	824.23	826.28	828.32	830.37	832.47	21.09

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	3155	3186	3205	3224	3243	3262	3281	3300	3319	3338	3357	3376	14.53
17	3395	3414	3433	3452	3471	3489	3508	3527	3546	3565	3584	3603	14.88
18	3622	3639	3647	3655	3664	3672	3680	3689	3697	3705	3713	3722	15.21
19	3730	3738	3746	3755	3763	3771	3779	3788	3796	3804	3812	3821	15.41
20	3829	3837	3847	3856	3865	3874	3883	3892	3901	3911	3920	3929	15.59
21	3938	3947	3956	3965	3975	3984	3993	4002	4011	4020	4029	4038	15.82
22	4048	4057	4068	4078	4089	4099	4110	4120	4131	4141	4152	4162	16.05
23	4173	4183	4194	4204	4215	4225	4236	4246	4257	4267	4278	4289	16.35
24	4299	4310	4321	4333	4345	4356	4368	4380	4391	4403	4415	4426	16.64
25	4438	4449	4461	4473	4484	4496	4508	4519	4531	4543	4554	4566	16.99
26	4578	4589	4602	4614	4627	4640	4652	4665	4677	4690	4702	4715	17.35
27	4727	4740	4752	4765	4777	4790	4802	4815	4828	4840	4853	4865	17.74
28	4878	4890	4904	4917	4930	4943	4957	4970	4983	4997	5010	5023	18.14
29	5036	5050	5063	5076	5089	5103	5116	5129	5142	5156	5169	5182	18.56
30	5195	5209	5222	5236	5249	5263	5276	5290	5303	5317	5331	5344	19.00
31	5358	5371	5385	5398	5412	5425	5439	5452	5466	5479	5493	5506	19.44

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

SHEET 2 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	1	2	2	2	2	3	3	3	4	4	4	3.44
1	4	5	5	5	6	6	6	7	7	7	7	9	4.15
2	12	15	18	20	23	26	29	32	35	37	40	43	4.86
3	46	49	52	55	58	60	63	66	69	72	75	78	5.57
4	82	89	96	103	110	117	125	132	139	146	153	160	6.30
5	168	175	182	189	196	204	211	218	225	232	240	247	6.99
6	254	264	277	289	301	314	326	339	351	364	376	389	7.68
7	401	414	427	440	452	465	478	490	503	516	529	541	8.37
8	554	568	587	606	624	643	662	681	699	718	737	756	9.08
9	774	793	812	831	849	868	887	906	925	943	962	981	9.78
10	1000	1020	1045	1070	1096	1121	1146	1172	1197	1222	1248	1273	10.48
11	1298	1324	1349	1374	1400	1425	1450	1476	1501	1526	1552	1577	11.19
12	1602	1629	1659	1690	1721	1752	1782	1813	1844	1874	1905	1936	11.89
13	1966	1997	2028	2058	2089	2120	2150	2181	2212	2243	2273	2304	12.57
14	2335	2366	2400	2435	2469	2503	2538	2572	2606	2640	2675	2709	13.24
15	2743	2778	2812	2846	2881	2915	2949	2983	3018	3052	3086	3121	13.89

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

SHEET 1 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1218.18	1219.55	1220.92	1222.30	1223.67	1225.05	1226.42	1227.79	1229.17	1230.54	1231.92	1233.29	29.02
49	1234.66	1236.04	1237.41	1238.78	1240.16	1241.53	1242.91	1244.28	1245.65	1247.03	1248.41	1249.78	29.36
50	1251.16	1252.54	1253.92	1255.29	1256.67	1258.05	1259.43	1260.80	1262.18	1263.56	1264.94	1266.31	29.70
51	1267.69	1269.07	1270.45	1271.82	1273.20	1274.58	1275.96	1277.33	1278.71	1280.09	1281.47	1282.85	30.05
52	1284.23	1285.61	1286.99	1288.37	1289.75	1291.13	1292.51	1293.89	1295.27	1296.65	1298.03	1299.41	30.40
53	1300.79	1302.17	1303.55	1304.93	1306.32	1307.70	1309.08	1310.46	1311.84	1313.22	1314.21	1314.91	30.75
54	1315.62	1316.32	1317.03	1317.74	1318.44	1319.15	1319.86	1320.56	1321.27	1321.98	1322.68		31.07

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 4 OF 4

C7-1000

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SOUNDING TABLE

WATERMAN LASH

#6 WING FO TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	834.56	836.66	838.76	840.86	842.96	845.06	847.15	849.25	851.35	853.45	855.55	857.65	21.57
33	859.74	861.84	863.94	866.04	868.14	870.23	872.33	874.43	876.53	878.63	880.73	882.87	22.06
34	885.01	887.16	889.30	891.44	893.58	895.72	897.87	900.01	902.15	904.29	906.43	908.58	22.55
35	910.72	912.86	915.00	917.14	919.29	921.43	923.57	925.71	927.85	930.00	932.14	934.32	23.05
36	936.49	938.67	940.85	943.02	945.20	947.37	949.55	951.73	953.90	956.08	958.26	960.43	23.55
37	962.61	964.79	966.96	969.14	971.31	973.49	975.67	977.84	980.02	982.20	984.37	986.58	24.05
38	988.78	990.98	993.19	995.39	997.59	999.79	1002.00	1004.20	1006.40	1008.61	1010.81	1013.01	24.56
39	1015.22	1017.42	1019.62	1021.82	1024.03	1026.23	1028.43	1030.64	1032.84	1035.04	1037.25	1039.47	25.07
40	1041.69	1043.92	1046.14	1048.36	1050.59	1052.81	1055.03	1057.26	1059.48	1061.70	1063.93	1066.15	25.58
41	1068.37	1070.60	1072.82	1075.04	1077.27	1079.49	1081.71	1083.94	1086.16	1088.38	1090.61	1092.85	26.10
42	1095.08	1097.32	1099.56	1101.80	1104.04	1106.27	1108.51	1110.75	1112.99	1115.23	1117.46	1119.70	26.62
43	1121.94	1124.18	1126.42	1128.65	1130.89	1133.13	1135.37	1137.61	1139.84	1142.08	1143.96	1145.57	27.13
44	1147.19	1148.80	1150.42	1152.03	1153.65	1155.26	1156.88	1158.49	1160.11	1161.72	1163.34	1164.95	27.62
45	1166.57	1168.18	1169.80	1171.41	1173.03	1174.64	1176.26	1177.87	1179.49	1181.10	1182.58	1183.94	27.99
46	1185.31	1186.68	1188.05	1189.42	1190.79	1192.16	1193.52	1194.89	1196.26	1197.63	1199.00	1200.37	28.36
47	1201.74	1203.11	1204.47	1205.84	1207.21	1208.58	1209.95	1211.32	1212.69	1214.06	1215.43	1216.80	28.69

TANK 100 PERCENT FULL SOUNDING = 54 FT. 10 2/8 IN CAP. = 1322.92 F.O.LTON VCG = 31.23 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 52 FT. 8 6/8 IN CAP. = 1296.46 F.O.LTON VCG = 30.66 FT.ABV.B.L.

LOWEST POINT OF TANK 4.962 FT. ABV. B.L.
STRIKING PLATE 1.283 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 55.699 FT.

SHEET 3 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.55

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5520	5534	5547	5560	5574	5587	5601	5614	5628	5641	5655	5668	19.89
33	5682	5695	5709	5722	5736	5749	5762	5776	5789	5803	5816	5830	20.34
34	5843	5857	5871	5884	5898	5912	5926	5940	5954	5968	5981	5995	20.79
35	6009	6023	6037	6051	6064	6078	6092	6106	6120	6134	6148	6161	21.26
36	6175	6189	6203	6217	6232	6246	6260	6274	6288	6302	6316	6331	21.72
37	6345	6359	6373	6387	6401	6415	6430	6444	6458	6472	6486	6500	22.20
38	6514	6529	6543	6557	6572	6586	6601	6615	6629	6644	6658	6673	22.68
39	6687	6701	6716	6730	6744	6759	6773	6788	6802	6816	6831	6845	23.17
40	6860	6874	6889	6903	6918	6932	6947	6961	6976	6990	7005	7020	23.66
41	7034	7049	7063	7078	7092	7107	7122	7136	7151	7165	7180	7194	24.16
42	7209	7224	7238	7253	7268	7283	7297	7312	7327	7341	7356	7371	24.66
43	7385	7400	7415	7430	7444	7459	7474	7488	7503	7518	7533	7547	25.16
44	7562	7577	7592	7606	7621	7636	7651	7666	7681	7695	7710	7725	25.66
45	7740	7755	7769	7784	7799	7814	7829	7843	7858	7873	7888	7903	26.17
46	7918	7932	7947	7962	7977	7992	8007	8022	8037	8051	8066	8075	26.67
47	8084	8093	8102	8111	8120	8129	8138	8147	8156	8165	8174	8183	27.15

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 3 OF 4
C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8192	8201	8210	8219	8229	8238	8247	8256	8265	8274	8283	8292	27.46
49	8301	8310	8319	8328	8337	8346	8355	8364	8374	8383	8392	8401	27.77
50	8410	8419	8428	8437	8446	8455	8464	8473	8482	8492	8501	8510	28.10
51	8519	8528	8537	8546	8555	8564	8574	8583	8592	8601	8610	8619	28.42
52	8628	8637	8646	8656	8665	8674	8683	8692	8701	8710	8719	8728	28.76
53	8738	8747	8756	8765	8774	8783	8792	8802	8811	8820	8829	8838	29.09
54	8847	8856	8866	8875	8884	8893	8902	8911	8920	8929	8939	8948	29.44
55	8957	8966	8975	8984	8994	9003	9012	9021	9030	9039	9048	9058	29.78
56	9067	9076	9085	9094	9103	9113	9122	9131	9140	9149	9158	9163	30.13
57	9167												30.45

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 4 OF 4
C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.15	0.19	0.24	0.28	0.33	0.37	0.41	0.46	0.50	0.55	0.59	0.63	3.44
1	0.68	0.72	0.77	0.81	0.85	0.90	0.94	0.99	1.03	1.07	1.12	1.39	4.15
2	1.81	2.23	2.66	3.08	3.50	3.92	4.35	4.78	5.21	5.65	6.08	6.52	4.86
3	6.95	7.39	7.82	8.25	8.69	9.12	9.56	9.99	10.42	10.86	11.29	11.73	5.57
4	12.34	13.41	14.47	15.55	16.63	17.71	18.80	19.88	20.96	22.04	23.12	24.21	6.30
5	25.29	26.37	27.45	28.54	29.62	30.70	31.78	32.87	33.96	35.05	36.14	37.23	6.99
6	38.32	39.83	41.71	43.59	45.47	47.35	49.23	51.11	52.99	54.87	56.75	58.63	7.68
7	60.54	62.46	64.38	66.30	68.22	70.14	72.06	73.98	75.89	77.81	79.73	81.65	8.37
8	83.57	85.71	88.54	91.36	94.18	97.01	99.83	102.65	105.48	108.31	111.14	113.97	9.08
9	116.79	119.62	122.45	125.28	128.11	130.94	133.77	136.60	139.43	142.26	145.09	147.92	9.78
10	150.75	153.81	157.63	161.45	165.27	169.08	172.90	176.72	180.54	184.36	188.18	192.00	10.48
11	195.82	199.64	203.46	207.28	211.10	214.92	218.73	222.55	226.37	230.19	234.01	237.83	11.19
12	241.65	245.65	250.28	254.91	259.54	264.17	268.79	273.42	278.05	282.68	287.31	291.93	11.89
13	296.56	301.19	305.82	310.45	315.07	319.70	324.33	328.96	333.59	338.22	342.84	347.47	12.57
14	352.10	356.85	362.02	367.20	372.37	377.54	382.71	387.89	393.06	398.23	403.40	408.58	13.24
15	413.75	418.92	424.09	429.27	434.44	439.61	444.78	449.96	455.13	460.30	465.47	470.64	13.89

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 1 OF 4
C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	475.82	480.47	483.33	486.19	489.06	491.92	494.78	497.65	500.51	503.37	506.24	509.10	14.53
17	511.96	514.83	517.69	520.56	523.42	526.28	529.15	532.01	534.87	537.74	540.60	543.46	14.88
18	546.33	548.82	550.07	551.32	552.56	553.81	555.05	556.30	557.55	558.79	560.04	561.28	15.21
19	562.53	563.78	565.02	566.27	567.51	568.76	570.01	571.25	572.50	573.75	574.99	576.24	15.41
20	577.48	578.76	580.14	581.52	582.89	584.27	585.65	587.03	588.41	589.79	591.16	592.54	15.59
21	593.92	595.30	596.68	598.06	599.44	600.81	602.19	603.57	604.95	606.33	607.71	609.08	15.82
22	610.46	611.89	613.47	615.06	616.65	618.23	619.82	621.41	622.99	624.58	626.17	627.75	16.05
23	629.34	630.93	632.51	634.10	635.69	637.27	638.86	640.45	642.03	643.62	645.21	646.79	16.35
24	648.38	650.00	651.76	653.51	655.27	657.03	658.78	660.54	662.29	664.05	665.80	667.56	16.64
25	669.31	671.07	672.83	674.58	676.34	678.09	679.85	681.60	683.36	685.11	686.87	688.63	16.99
26	690.38	692.17	694.06	695.95	697.84	699.73	701.62	703.51	705.40	707.29	709.18	711.07	17.35
27	712.96	714.86	716.75	718.64	720.53	722.42	724.31	726.20	728.09	729.98	731.87	733.76	17.74
28	735.65	737.57	739.57	741.57	743.57	745.57	747.57	749.57	751.57	753.57	755.57	757.57	18.14
29	759.57	761.57	763.57	765.57	767.57	769.57	771.57	773.57	775.57	777.57	779.57	781.57	18.56
30	783.57	785.58	787.62	789.66	791.70	793.74	795.78	797.82	799.87	801.91	803.95	805.99	19.00
31	808.03	810.07	812.11	814.15	816.19	818.24	820.28	822.32	824.36	826.40	828.44	830.48	19.44

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 2 OF 4
C7-1000

440

WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	3182	3205	3227	3249	3271	3293	3315	3338	3360	3382	3404	3426	14.57
17	3448	3471	3493	3515	3537	3559	3581	3603	3616	3624	3632	3641	14.96
18	3649	3657	3666	3674	3682	3691	3699	3707	3715	3724	3732	3740	15.26
19	3749	3757	3765	3774	3782	3790	3799	3807	3816	3825	3834	3843	15.44
20	3852	3861	3870	3879	3888	3897	3905	3914	3923	3932	3941	3950	15.64
21	3959	3968	3977	3986	3995	4004	4013	4022	4032	4043	4053	4064	15.86
22	4074	4084	4095	4105	4115	4126	4136	4147	4157	4167	4178	4188	16.11
23	4199	4209	4219	4230	4240	4251	4261	4271	4283	4294	4306	4317	16.41
24	4329	4340	4352	4363	4375	4386	4398	4410	4421	4433	4444	4456	16.72
25	4467	4479	4490	4502	4513	4525	4536	4548	4560	4573	4585	4598	17.07
26	4610	4622	4635	4647	4660	4672	4685	4697	4710	4722	4735	4747	17.43
27	4759	4772	4784	4797	4809	4822	4834	4847	4860	4873	4886	4899	17.82
28	4912	4926	4939	4952	4965	4978	4992	5005	5018	5031	5044	5058	18.23
29	5071	5084	5097	5110	5124	5137	5150	5163	5177	5190	5203	5217	18.66
30	5230	5244	5257	5271	5284	5298	5311	5325	5338	5352	5365	5379	19.09
31	5392	5406	5419	5433	5446	5460	5473	5487	5500	5514	5527	5540	19.54

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 2 OF 4
C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0	0	1	1	1	1	1	1	1	1	1	1	3.36
1	1	2	2	2	2	3	5	7	10	12	14	16	3.79
2	18	20	23	25	27	29	31	34	36	38	40	42	4.55
3	45	47	49	51	54	56	58	65	71	77	83	90	5.51
4	96	102	109	115	122	128	134	141	147	154	160	166	6.35
5	173	179	186	192	198	205	211	218	230	242	253	265	7.05
6	277	289	300	312	324	335	347	359	370	382	394	406	7.75
7	417	429	441	453	465	477	489	501	518	536	554	572	8.46
8	590	608	626	644	662	680	698	716	734	752	770	789	9.17
9	807	825	843	861	879	897	915	933	956	981	1006	1031	9.89
10	1055	1080	1105	1130	1155	1180	1204	1229	1254	1279	1304	1328	10.60
11	1353	1378	1403	1428	1453	1477	1502	1527	1556	1586	1616	1647	11.32
12	1677	1707	1738	1768	1798	1829	1859	1889	1920	1950	1980	2010	12.02
13	2041	2071	2101	2132	2162	2192	2223	2253	2286	2320	2354	2388	12.71
14	2422	2456	2490	2524	2558	2592	2626	2660	2694	2728	2762	2796	13.38
15	2830	2864	2898	2932	2966	3000	3034	3068	3094	3116	3138	3160	14.02

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 1 OF 4
C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1235.57	1236.93	1238.30	1239.66	1241.02	1242.38	1243.74	1245.11	1246.47	1247.83	1249.19	1250.56	27.46
49	1251.93	1253.30	1254.67	1256.04	1257.41	1258.78	1260.15	1261.52	1262.89	1264.26	1265.63	1267.00	27.77
50	1268.37	1269.74	1271.11	1272.47	1273.84	1275.21	1276.58	1277.95	1279.32	1280.69	1282.06	1283.44	28.10
51	1284.81	1286.18	1287.56	1288.93	1290.31	1291.68	1293.06	1294.43	1295.80	1297.18	1298.55	1299.93	28.42
52	1301.30	1302.68	1304.05	1305.43	1306.80	1308.17	1309.55	1310.92	1312.30	1313.67	1315.05	1316.42	28.76
53	1317.80	1319.18	1320.56	1321.94	1323.31	1324.69	1326.07	1327.45	1328.82	1330.20	1331.58	1332.96	29.09
54	1334.34	1335.71	1337.09	1338.47	1339.85	1341.22	1342.60	1343.98	1345.36	1346.74	1348.11	1349.49	29.44
55	1350.88	1352.26	1353.64	1355.02	1356.40	1357.78	1359.16	1360.54	1361.92	1363.30	1364.68	1366.06	29.78
56	1367.44	1368.82	1370.20	1371.59	1372.97	1374.35	1375.73	1377.11	1378.49	1379.87	1381.21	1381.89	30.13
57	1382.56												30.45

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 4 OF 4
C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	832.52	834.56	836.59	838.62	840.65	842.69	844.72	846.75	848.78	850.81	852.84	854.87	19.89
33	856.90	858.93	860.97	863.00	865.03	867.06	869.09	871.12	873.15	875.18	877.21	879.24	20.34
34	881.28	883.32	885.41	887.49	889.58	891.67	893.76	895.85	897.93	900.02	902.11	904.20	20.79
35	906.29	908.37	910.46	912.55	914.64	916.73	918.81	920.90	922.99	925.08	927.16	929.25	21.26
36	931.34	933.44	935.57	937.71	939.84	941.97	944.11	946.24	948.37	950.51	952.64	954.77	21.72
37	956.91	959.04	961.17	963.31	965.44	967.57	969.71	971.84	973.98	976.11	978.24	980.38	22.20
38	982.51	984.65	986.82	988.99	991.16	993.33	995.50	997.67	999.84	1002.01	1004.18	1006.34	22.68
39	1008.51	1010.68	1012.85	1015.02	1017.19	1019.36	1021.53	1023.70	1025.87	1028.04	1030.21	1032.38	23.17
40	1034.55	1036.72	1038.92	1041.12	1043.31	1045.51	1047.71	1049.91	1052.10	1054.30	1056.50	1058.70	23.66
41	1060.89	1063.09	1065.29	1067.49	1069.68	1071.88	1074.08	1076.28	1078.47	1080.67	1082.87	1085.07	24.16
42	1087.26	1089.47	1091.68	1093.90	1096.12	1098.34	1100.56	1102.78	1105.00	1107.22	1109.44	1111.66	24.66
43	1113.87	1116.09	1118.31	1120.53	1122.75	1124.97	1127.19	1129.41	1131.63	1133.85	1136.06	1138.28	25.16
44	1140.50	1142.72	1144.96	1147.19	1149.43	1151.66	1153.90	1156.13	1158.37	1160.60	1162.84	1165.07	25.66
45	1167.31	1169.54	1171.78	1174.01	1176.25	1178.48	1180.71	1182.95	1185.18	1187.42	1189.65	1191.89	26.17
46	1194.12	1196.36	1198.60	1200.85	1203.09	1205.33	1207.58	1209.82	1212.07	1214.31	1216.50	1217.86	26.67
47	1219.23	1220.59	1221.95	1223.31	1224.67	1226.04	1227.40	1228.76	1230.12	1231.49	1232.85	1234.21	27.15

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 3 2/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.236 FT. ABV. B.L.
STRIKING PLATE 0.264 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 3 OF 4
C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 56

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5554	5567	5581	5594	5608	5621	5634	5648	5661	5675	5688	5702	19.98
33	5715	5728	5742	5755	5769	5782	5796	5809	5823	5836	5850	5864	20.43
34	5878	5892	5906	5919	5933	5947	5961	5975	5988	6002	6016	6030	20.89
35	6044	6057	6071	6085	6099	6113	6126	6140	6154	6168	6183	6197	21.35
36	6211	6225	6239	6253	6267	6281	6296	6310	6324	6338	6352	6366	21.82
37	6380	6394	6409	6423	6437	6451	6465	6479	6493	6508	6522	6536	22.30
38	6551	6565	6580	6594	6608	6623	6637	6651	6666	6680	6695	6709	22.79
39	6723	6738	6752	6766	6781	6795	6809	6824	6838	6853	6867	6882	23.28
40	6897	6911	6926	6940	6955	6969	6984	6998	7013	7028	7042	7057	23.77
41	7071	7086	7100	7115	7129	7144	7159	7173	7188	7202	7217	7232	24.27
42	7247	7261	7276	7291	7305	7320	7335	7349	7364	7379	7394	7408	24.77
43	7423	7438	7452	7467	7482	7496	7511	7526	7541	7555	7570	7585	25.27
44	7600	7615	7630	7644	7659	7674	7689	7704	7718	7733	7748	7763	25.77
45	7778	7792	7807	7822	7837	7852	7867	7881	7896	7911	7926	7941	26.28
46	7956	7971	7985	8000	8015	8027	8037	8047	8057	8067	8077	8087	26.78
47	8096	8106	8116	8126	8136	8146	8156	8165	8175	8185	8195	8205	27.18

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 3 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8215	8225	8235	8244	8254	8264	8273	8282	8291	8300	8309	8318	27.52
49	8327	8336	8345	8355	8364	8373	8382	8391	8400	8409	8418	8427	27.85
50	8436	8445	8454	8463	8473	8482	8491	8500	8509	8518	8527	8536	28.18
51	8545	8555	8564	8573	8582	8591	8600	8609	8618	8627	8637	8646	28.51
52	8655	8664	8673	8682	8691	8700	8709	8719	8728	8737	8746	8755	28.84
53	8764	8773	8783	8792	8801	8810	8819	8828	8837	8846	8856	8865	29.18
54	8874	8883	8892	8901	8910	8920	8929	8938	8947	8956	8965	8974	29.52
55	8984	8993	9002	9011	9020	9029	9039	9048	9057	9066	9075	9084	29.87
56	9093	9103	9112	9121	9130	9137	9141	9146	9151	9155	9160	9165	30.22
57	9169												30.46

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.05	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16	0.18	0.19	0.21	3.36
1	0.22	0.23	0.25	0.26	0.28	0.45	0.78	1.11	1.43	1.76	2.09	2.42	3.79
2	2.75	3.08	3.41	3.73	4.06	4.39	4.72	5.06	5.39	5.73	6.07	6.41	4.55
3	6.74	7.08	7.42	7.76	8.09	8.43	8.78	9.74	10.69	11.64	12.59	13.54	5.51
4	14.50	15.45	16.40	17.36	18.33	19.29	20.26	21.22	22.19	23.15	24.12	25.09	6.35
5	26.05	27.02	27.98	28.95	29.91	30.88	31.85	32.93	34.70	36.46	38.22	39.99	7.05
6	41.75	43.52	45.28	47.05	48.81	50.58	52.34	54.11	55.87	57.64	59.40	61.16	7.75
7	62.95	64.76	66.56	68.36	70.16	71.96	73.77	75.57	78.06	80.78	83.50	86.23	8.46
8	88.95	91.67	94.39	97.12	99.84	102.56	105.29	108.01	110.73	113.46	116.19	118.92	9.17
9	121.65	124.38	127.11	129.84	132.57	135.30	138.03	140.76	144.21	147.96	151.70	155.44	9.89
10	159.18	162.93	166.67	170.41	174.15	177.90	181.64	185.38	189.12	192.87	196.61	200.35	10.60
11	204.10	207.84	211.58	215.32	219.07	222.81	226.55	230.29	234.63	239.20	243.78	248.35	11.32
12	252.92	257.49	262.07	266.64	271.21	275.78	280.36	284.93	289.50	294.08	298.65	303.22	12.02
13	307.79	312.37	316.94	321.51	326.09	330.66	335.23	339.80	344.77	349.90	355.03	360.16	12.71
14	365.29	370.42	375.55	380.68	385.81	390.94	396.07	401.20	406.33	411.46	416.59	421.72	13.38
15	426.85	431.98	437.10	442.24	447.36	452.49	457.62	462.75	466.60	469.95	473.29	476.63	14.02

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	479.97	483.31	486.66	490.00	493.34	496.68	500.02	503.37	506.71	510.05	513.39	516.73	14.57
17	520.08	523.42	526.76	530.10	533.45	536.79	540.13	543.47	545.32	546.57	547.83	549.08	14.96
18	550.33	551.59	552.84	554.09	555.35	556.60	557.85	559.10	560.36	561.61	562.86	564.12	15.26
19	565.37	566.62	567.88	569.13	570.38	571.64	572.89	574.14	575.47	576.82	578.18	579.54	15.44
20	580.89	582.25	583.60	584.96	586.31	587.67	589.02	590.38	591.73	593.09	594.45	595.80	15.64
21	597.16	598.51	599.87	601.22	602.58	603.93	605.29	606.64	608.15	609.72	611.29	612.85	15.86
22	614.42	615.99	617.56	619.13	620.69	622.26	623.83	625.40	626.96	628.53	630.10	631.67	16.11
23	633.24	634.80	636.37	637.94	639.51	641.07	642.64	644.21	645.90	647.64	649.38	651.12	16.41
24	652.86	654.60	656.34	658.08	659.82	661.56	663.30	665.04	666.78	668.52	670.26	672.00	16.72
25	673.74	675.48	677.22	678.96	680.70	682.44	684.18	685.93	687.76	689.64	691.52	693.40	17.07
26	695.28	697.16	699.03	700.91	702.79	704.67	706.55	708.43	710.30	712.18	714.06	715.94	17.43
27	717.82	719.69	721.57	723.45	725.33	727.21	729.09	730.96	732.92	734.91	736.90	738.89	17.82
28	740.88	742.87	744.86	746.85	748.84	750.83	752.82	754.81	756.80	758.79	760.78	762.77	18.23
29	764.76	766.75	768.74	770.73	772.72	774.71	776.70	778.69	780.72	782.75	784.79	786.82	18.66
30	788.85	790.89	792.92	794.96	796.99	799.03	801.06	803.10	805.13	807.16	809.20	811.23	19.09
31	813.27	815.30	817.34	819.37	821.41	823.44	825.47	827.51	829.54	831.56	833.59	835.61	19.54

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	3233	3259	3284	3309	3335	3360	3385	3410	3436	3461	3486	3512	14.64
17	3537	3562	3584	3592	3601	3609	3617	3626	3634	3643	3651	3659	15.08
18	3668	3676	3684	3693	3701	3709	3718	3726	3734	3743	3751	3760	15.30
19	3768	3776	3785	3794	3802	3811	3820	3829	3838	3847	3856	3864	15.47
20	3873	3882	3891	3900	3909	3918	3926	3935	3944	3953	3962	3971	15.68
21	3980	3988	3998	4008	4018	4028	4039	4049	4059	4070	4080	4090	15.90
22	4100	4111	4121	4131	4141	4152	4162	4172	4182	4193	4203	4213	16.18
23	4223	4234	4244	4256	4267	4279	4290	4301	4313	4324	4336	4347	16.46
24	4359	4370	4381	4393	4404	4416	4427	4439	4450	4461	4473	4484	16.80
25	4496	4507	4519	4531	4544	4556	4568	4581	4593	4605	4618	4630	17.14
26	4643	4655	4667	4680	4692	4704	4717	4729	4742	4754	4766	4779	17.52
27	4791	4803	4816	4829	4842	4855	4868	4882	4895	4908	4921	4934	17.91
28	4947	4960	4973	4987	5000	5013	5026	5039	5052	5065	5078	5092	18.33
29	5105	5118	5131	5144	5158	5171	5185	5198	5212	5225	5239	5252	18.75
30	5265	5279	5292	5306	5319	5333	5346	5360	5373	5386	5400	5413	19.19
31	5427	5440	5454	5467	5480	5494	5507	5521	5534	5547	5561	5574	19.63

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.962 FT. ABV. B.L.
STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 2 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0	0	0	0	0	0	0	0	0	0	0	0	3.49
1	1	2	4	6	7	9	10	12	14	15	17	18	4.06
2	20	21	23	25	26	28	29	31	33	34	36	38	4.86
3	39	44	49	55	61	66	72	77	83	88	94	99	5.68
4	105	111	116	122	127	133	139	144	150	156	161	167	6.40
5	172	178	188	199	210	220	231	242	253	264	275	286	7.12
6	297	307	318	329	340	351	362	373	384	395	406	416	7.84
7	428	439	451	469	486	503	521	538	556	573	590	608	8.55
8	625	642	660	677	694	712	729	746	764	781	799	816	9.28
9	833	851	870	894	918	943	967	991	1015	1040	1064	1088	10.01
10	1113	1137	1161	1185	1210	1234	1258	1283	1307	1331	1355	1380	10.74
11	1404	1428	1454	1484	1514	1544	1573	1603	1633	1663	1693	1723	11.47
12	1753	1783	1813	1843	1873	1903	1933	1963	1993	2023	2053	2082	12.16
13	2112	2142	2173	2207	2240	2274	2308	2342	2375	2409	2443	2476	12.86
14	2510	2544	2578	2611	2645	2679	2713	2746	2780	2814	2847	2881	13.52
15	2915	2949	2981	3006	3031	3056	3082	3107	3132	3158	3183	3208	14.17

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.962 FT. ABV. B.L.
STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 1 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1238.95	1240.44	1241.93	1243.42	1244.91	1246.33	1247.70	1249.07	1250.44	1251.81	1253.18	1254.54	27.52
49	1255.91	1257.28	1258.65	1260.02	1261.39	1262.76	1264.13	1265.50	1266.87	1268.24	1269.60	1270.97	27.85
50	1272.34	1273.71	1275.08	1276.45	1277.82	1279.19	1280.57	1281.94	1283.31	1284.69	1286.06	1287.44	28.18
51	1288.81	1290.18	1291.56	1292.93	1294.31	1295.68	1297.06	1298.43	1299.80	1301.18	1302.55	1303.93	28.51
52	1305.30	1306.67	1308.05	1309.42	1310.80	1312.17	1313.55	1314.93	1316.31	1317.68	1319.06	1320.44	28.84
53	1321.82	1323.19	1324.57	1325.95	1327.33	1328.71	1330.08	1331.46	1332.84	1334.22	1335.59	1336.97	29.18
54	1338.35	1339.73	1341.10	1342.48	1343.86	1345.24	1346.62	1348.00	1349.38	1350.76	1352.14	1353.52	29.52
55	1354.90	1356.28	1357.66	1359.04	1360.43	1361.81	1363.19	1364.57	1365.95	1367.33	1368.71	1370.09	29.87
56	1371.47	1372.85	1374.23	1375.61	1376.99	1378.00	1378.70	1379.40	1380.10	1380.81	1381.51	1382.21	30.22
57	1382.91												30.46

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 4 OF 4

C7-1000

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	837.64	839.66	841.68	843.71	845.73	847.76	849.78	851.81	853.83	855.86	857.88	859.91	19.98
33	861.93	863.96	865.98	868.01	870.03	872.05	874.08	876.10	878.17	880.25	882.34	884.42	20.43
34	886.50	888.58	890.67	892.75	894.83	896.92	899.00	901.08	903.16	905.25	907.33	909.41	20.89
35	911.50	913.58	915.66	917.74	919.83	921.91	923.99	926.08	928.19	930.32	932.45	934.58	21.35
36	936.71	938.84	940.97	943.10	945.23	947.36	949.49	951.62	953.75	955.88	958.01	960.14	21.82
37	962.27	964.40	966.53	968.65	970.78	972.91	975.04	977.17	979.33	981.50	983.66	985.83	22.30
38	988.00	990.16	992.33	994.49	996.66	998.83	1000.99	1003.16	1005.33	1007.49	1009.66	1011.83	22.79
39	1013.99	1016.16	1018.33	1020.49	1022.66	1024.83	1026.99	1029.16	1031.35	1033.54	1035.74	1037.93	23.28
40	1040.13	1042.32	1044.52	1046.71	1048.91	1051.10	1053.30	1055.49	1057.69	1059.88	1062.08	1064.28	23.77
41	1066.47	1068.67	1070.86	1073.06	1075.25	1077.45	1079.64	1081.84	1084.05	1086.27	1088.48	1090.70	24.27
42	1092.92	1095.14	1097.35	1099.57	1101.79	1104.01	1106.22	1108.44	1110.66	1112.88	1115.09	1117.31	24.77
43	1119.53	1121.75	1123.96	1126.18	1128.40	1130.62	1132.83	1135.05	1137.28	1139.51	1141.75	1143.98	25.27
44	1146.21	1148.45	1150.68	1152.92	1155.15	1157.38	1159.62	1161.85	1164.08	1166.32	1168.55	1170.78	25.77
45	1173.02	1175.25	1177.49	1179.72	1181.95	1184.19	1186.42	1188.65	1190.89	1193.14	1195.38	1197.62	26.28
46	1199.87	1202.11	1204.35	1206.59	1208.84	1210.67	1212.16	1213.65	1215.13	1216.62	1218.11	1219.60	26.78
47	1221.09	1222.58	1224.07	1225.55	1227.04	1228.53	1230.02	1231.51	1233.00	1234.49	1235.97	1237.46	27.18

TANK 100 PERCENT FULL SOUNDING = 57 FT. 0 3/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 55 FT. 0 3/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.
LOWEST POINT OF TANK 3.696 FT. ABV. B.L.
STRIKING PLATE 0.261 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.
SHEET 3 OF 4

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.57

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	5587	5601	5614	5628	5641	5654	5668	5681	5694	5708	5721	5735	20.08
33	5748	5761	5775	5789	5802	5816	5830	5844	5858	5871	5885	5899	20.52
34	5913	5926	5940	5954	5968	5981	5995	6009	6023	6037	6050	6064	20.98
35	6078	6092	6106	6120	6134	6148	6162	6176	6190	6204	6218	6232	21.45
36	6246	6261	6275	6289	6303	6317	6331	6345	6359	6373	6387	6401	21.93
37	6416	6430	6444	6458	6473	6487	6501	6516	6530	6544	6559	6573	22.40
38	6587	6602	6616	6630	6645	6659	6673	6688	6702	6716	6731	6745	22.89
39	6759	6774	6788	6803	6817	6832	6846	6861	6875	6890	6904	6919	23.38
40	6934	6948	6963	6977	6992	7006	7021	7035	7050	7064	7079	7094	23.88
41	7108	7123	7137	7152	7167	7181	7196	7211	7225	7240	7255	7269	24.37
42	7284	7299	7313	7328	7343	7358	7372	7387	7402	7416	7431	7446	24.87
43	7460	7475	7490	7505	7519	7534	7549	7564	7579	7593	7608	7623	25.37
44	7638	7653	7667	7682	7697	7712	7727	7741	7756	7771	7786	7801	25.88
45	7815	7830	7845	7860	7875	7890	7905	7919	7934	7949	7964	7979	26.38
46	7989	8000	8011	8022	8032	8043	8054	8064	8075	8086	8097	8107	26.88
47	8118	8129	8139	8150	8161	8171	8182	8193	8204	8214	8225	8236	27.25

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.962 FT. ABV. B.L.

STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

C7-1000

SHEET 3 OF 4

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO OVERFLOW TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95-3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.11	0.27	0.43	0.59	0.75	0.91	1.07	1.23	1.39	1.55	1.71	1.87	50.03
1	2.03	2.19	2.35	2.51	2.67	2.83	2.99	3.15	3.31	3.47	3.63	3.79	50.53
2	3.95	4.11	4.27	4.43	4.59	4.75	4.91	5.07	5.23	5.39	5.55	5.71	51.03
3	5.87	6.02	6.18	6.34	6.50	6.66	6.82	6.98	7.14	7.30	7.46	7.62	51.53
4	7.78	7.94	8.10	8.26	8.42	8.58	8.74	8.90	9.06	9.22	9.38	9.54	52.03
5	9.70	9.86	10.02	10.18	10.34	10.50	10.66	10.82	10.98	11.14	11.30	11.46	52.53
6	11.62	11.77	11.93	12.09	12.25	12.41	12.57	12.73	12.89	13.05	13.21	13.37	53.03
7	13.53	13.69	13.85	14.01	14.17	14.33	14.49	14.65	14.81	14.97	15.13	15.29	53.53
8	15.45	15.61	15.77	15.93	16.09	16.25	16.41	16.57	16.73	16.89	17.05	17.21	54.03
9	17.37	17.52	17.68	17.84	18.00	18.16	18.32	18.48	18.64	18.80	18.96	19.12	54.53
10	19.22	19.30	19.38										55.01

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

C7-1000

SHEET 1 OF 1

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	8245	8254	8263	8272	8281	8290	8299	8308	8317	8326	8336	8345	27.61
49	8354	8363	8372	8381	8390	8399	8408	8417	8426	8435	8444	8453	27.93
50	8463	8472	8481	8490	8499	8508	8517	8526	8535	8545	8554	8563	28.26
51	8572	8581	8590	8599	8608	8617	8627	8636	8645	8654	8663	8672	28.59
52	8681	8690	8700	8709	8718	8727	8736	8745	8754	8763	8773	8782	28.92
53	8791	8800	8809	8818	8827	8837	8846	8855	8864	8873	8882	8891	29.26
54	8900	8910	8919	8928	8937	8946	8955	8965	8974	8983	8992	9001	29.60
55	9010	9019	9029	9038	9047	9056	9065	9074	9084	9093	9102	9111	29.95
56	9116	9120	9125	9130	9134	9139	9144	9148	9153	9158	9162	9167	30.29

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 9171.16 BARRELS VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 8987.74 BARRELS VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.962 FT. ABV. B.L.

STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

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SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO OVERFLOW TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95-3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	15	16	17	18	19	20	21	22	23	24	25	50.53
2	26	27	28	29	30	31	33	34	35	36	37	38	51.03
3	39	40	41	42	43	44	45	46	47	48	49	51	51.53
4	52	53	54	55	56	57	58	59	60	61	62	63	52.03
5	64	65	66	67	69	70	71	72	73	74	75	76	52.53
6	77	78	79	80	81	82	83	84	85	87	88	89	53.03
7	90	91	92	93	94	95	96	97	98	99	100	101	53.53
8	102	103	105	106	107	108	109	110	111	112	113	114	54.03
9	115	116	117	118	119	120	121	123	124	125	126	127	54.53
10	127	128	129										55.01

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

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SHEET 1 OF 1

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	-0.07	-0.09	-0.10	-0.11	-0.12	-0.14	-0.15	-0.16	-0.17	-0.19	-0.20	-0.11	3.49
1	0.13	0.37	0.61	0.85	1.09	1.33	1.56	1.80	2.04	2.28	2.52	2.76	4.06
2	3.00	3.24	3.48	3.72	3.96	4.20	4.43	4.68	4.93	5.17	5.42	5.66	4.86
3	5.91	6.61	7.45	8.29	9.12	9.96	10.80	11.64	12.48	13.32	14.16	14.99	5.68
4	15.83	16.67	17.51	18.35	19.20	20.05	20.91	21.76	22.61	23.46	24.31	25.16	6.40
5	26.01	26.86	28.34	29.97	31.60	33.23	34.86	36.50	38.15	39.79	41.44	43.08	7.12
6	44.72	46.37	48.01	49.66	51.30	52.95	54.59	56.23	57.88	59.52	61.17	62.81	7.84
7	64.48	66.16	68.07	70.69	73.31	75.93	78.54	81.16	83.78	86.40	89.02	91.64	8.55
8	94.26	96.87	99.49	102.11	104.73	107.35	109.97	112.58	115.20	117.83	120.45	123.08	9.28
9	125.70	128.33	131.16	134.83	138.49	142.15	145.82	149.48	153.14	156.80	160.47	164.13	10.01
10	167.79	171.46	175.12	178.78	182.44	186.11	189.77	193.43	197.10	200.76	204.42	208.08	10.74
11	211.75	215.41	219.25	223.76	228.28	232.79	237.31	241.82	246.34	250.86	255.37	259.89	11.47
12	264.40	268.92	273.43	277.95	282.46	286.98	291.50	296.01	300.53	305.04	309.56	314.07	12.16
13	318.59	323.11	327.74	332.82	337.91	342.99	348.08	353.16	358.25	363.33	368.42	373.50	12.86
14	378.59	383.67	388.76	393.85	398.93	404.02	409.10	414.19	419.27	424.36	429.44	434.53	13.52
15	439.61	444.70	449.53	453.34	457.15	460.97	464.78	468.59	472.41	476.22	480.03	483.85	14.17

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.962 FT. ABV. B.L.

STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

C7-1000

SHEET 1 OF 4

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
48	1243.47	1244.84	1246.20	1247.57	1248.94	1250.31	1251.68	1253.05	1254.42	1255.79	1257.15	1258.52	27.61
49	1259.89	1261.26	1262.63	1264.00	1265.37	1266.74	1268.10	1269.47	1270.84	1272.21	1273.58	1274.95	27.93
50	1276.32	1277.70	1279.07	1280.44	1281.82	1283.19	1284.57	1285.94	1287.31	1288.69	1290.06	1291.44	28.26
51	1292.81	1294.18	1295.56	1296.93	1298.30	1299.68	1301.05	1302.43	1303.80	1305.17	1306.55	1307.92	28.59
52	1309.30	1310.68	1312.06	1313.43	1314.81	1316.19	1317.57	1318.94	1320.32	1321.70	1323.08	1324.45	28.92
53	1325.83	1327.21	1328.59	1329.96	1331.34	1332.72	1334.10	1335.47	1336.85	1338.23	1339.61	1340.98	29.26
54	1342.36	1343.74	1345.13	1346.51	1347.89	1349.27	1350.65	1352.03	1353.41	1354.79	1356.17	1357.55	29.60
55	1358.93	1360.31	1361.69	1363.07	1364.45	1365.83	1367.21	1368.59	1369.97	1371.35	1372.73	1374.09	29.95
56	1374.80	1375.50	1376.21	1376.92	1377.62	1378.33	1379.04	1379.74	1380.45	1381.16	1381.86	1382.57	30.29

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.962 FT. ABV. B.L.

STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

C7-1000

SHEET 4 OF 4

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	487.66	491.48	495.29	499.10	502.92	506.73	510.54	514.36	518.17	521.98	525.80	529.61	14.64
17	533.42	537.24	540.54	541.80	543.06	544.32	545.58	546.84	548.10	549.36	550.62	551.88	15.08
18	553.15	554.41	555.67	556.93	558.19	559.45	560.71	561.97	563.23	564.50	565.76	567.02	15.30
19	568.28	569.54	570.82	572.15	573.49	574.82	576.16	577.50	578.83	580.17	581.50	582.84	15.47
20	584.18	585.51	586.85	588.18	589.52	590.85	592.19	593.53	594.86	596.20	597.53	598.87	15.68
21	600.21	601.54	602.92	604.47	606.02	607.57	609.11	610.66	612.21	613.76	615.31	616.86	15.90
22	618.40	619.95	621.50	623.05	624.60	626.15	627.69	629.24	630.79	632.34	633.89	635.44	16.18
23	636.98	638.53	640.12	641.84	643.57	645.29	647.01	648.74	650.46	652.19	653.91	655.64	16.46
24	657.36	659.08	660.81	662.53	664.26	665.98	667.71	669.43	671.16	672.88	674.60	676.33	16.80
25	678.05	679.78	681.53	683.40	685.26	687.13	688.99	690.86	692.72	694.59	696.45	698.32	17.14
26	700.19	702.05	703.92	705.78	707.65	709.51	711.38	713.24	715.11	716.98	718.84	720.71	17.52
27	722.57	724.44	726.33	728.31	730.29	732.27	734.25	736.23	738.21	740.19	742.16	744.14	17.91
28	746.12	748.10	750.08	752.06	754.04	756.02	758.00	759.98	761.96	763.94	765.92	767.90	18.33
29	769.88	771.86	773.85	775.88	777.91	779.93	781.96	783.99	786.02	788.04	790.07	792.10	18.75
30	794.13	796.16	798.18	800.21	802.24	804.27	806.29	808.32	810.35	812.38	814.40	816.43	19.19
31	818.46	820.49	822.51	824.53	826.55	828.57	830.59	832.60	834.62	836.64	838.66	840.68	19.63

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.962 FT. ABV. B.L.

STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

C7-1000

SHEET 2 OF 4

453

WATERMAN LASH

SOUNDING TABLE

#6 WING FO TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-101 S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
32	842.69	844.71	846.73	848.75	850.77	852.78	854.80	856.82	858.84	860.86	862.87	864.89	20.08
33	866.91	868.93	870.96	873.04	875.11	877.19	879.27	881.35	883.42	885.50	887.58	889.66	20.52
34	891.73	893.81	895.89	897.97	900.05	902.12	904.20	906.28	908.36	910.43	912.51	914.59	20.98
35	916.67	918.74	920.83	922.96	925.08	927.21	929.33	931.46	933.59	935.71	937.84	939.96	21.45
36	942.09	944.21	946.34	948.46	950.59	952.72	954.84	956.97	959.09	961.22	963.34	965.47	21.93
37	967.59	969.72	971.85	974.02	976.18	978.34	980.51	982.67	984.83	987.00	989.16	991.32	22.40
38	993.49	995.65	997.81	999.98	1002.14	1004.31	1006.47	1008.63	1010.80	1012.96	1015.12	1017.29	22.89
39	1019.45	1021.61	1023.78	1025.98	1028.17	1030.36	1032.55	1034.75	1036.94	1039.13	1041.33	1043.52	23.38
40	1045.71	1047.91	1050.10	1052.29	1054.48	1056.68	1058.87	1061.06	1063.26	1065.45	1067.64	1069.84	23.88
41	1072.03	1074.22	1076.42	1078.64	1080.85	1083.07	1085.28	1087.50	1089.72	1091.93	1094.15	1096.36	24.37
42	1098.58	1100.79	1103.01	1105.23	1107.44	1109.66	1111.87	1114.09	1116.31	1118.52	1120.74	1122.95	24.87
43	1125.17	1127.38	1129.60	1131.84	1134.07	1136.30	1138.53	1140.77	1143.00	1145.23	1147.46	1149.70	25.37
44	1151.93	1154.16	1156.40	1158.63	1160.86	1163.09	1165.33	1167.56	1169.79	1172.02	1174.26	1176.49	25.88
45	1178.72	1180.95	1183.19	1185.43	1187.67	1189.92	1192.16	1194.40	1196.64	1198.88	1201.13	1203.35	26.38
46	1204.96	1206.58	1208.19	1209.81	1211.42	1213.04	1214.65	1216.27	1217.88	1219.50	1221.11	1222.73	26.88
47	1224.34	1225.96	1227.57	1229.19	1230.80	1232.42	1234.03	1235.65	1237.26	1238.88	1240.49	1242.10	27.25

TANK 100 PERCENT FULL SOUNDING = 56 FT. 11 7/8 IN CAP. = 1383.19 F.O.LTON VCG = 30.47 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 54 FT. 9 4/8 IN CAP. = 1355.52 F.O.LTON VCG = 29.88 FT.ABV.B.L.

LOWEST POINT OF TANK 3.962 FT. ABV. B.L.

STRIKING PLATE 0.453 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.828 FT.

C7-1000

SHEET 3 OF 4

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 58

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WATERMAN LASH

SOUNDING TABLE

#6 WING FO OVERFLOW TANK P

TRIM 5.00 FT. AFT
LIST C.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95-3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	14	15	17	18	19	20	21	22	23	24	25	50.53
2	26	27	28	29	30	31	32	33	34	35	37	38	51.02
3	39	40	41	42	43	44	45	46	47	48	49	50	51.52
4	51	52	53	55	56	57	58	59	60	61	62	63	52.02
5	64	65	66	67	68	69	70	71	73	74	75	76	52.52
6	77	78	79	80	81	82	83	84	85	86	87	88	53.02
7	89	91	92	93	94	95	96	97	98	99	100	101	53.52
8	102	103	104	105	106	107	109	110	111	112	113	114	54.02
9	115	116	117	118	119	120	121	122	123	124	126	127	54.52
10	127	128	128										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 5/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 4/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.065 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

458

WATERMAN LASH

SOUNDING TABLE

#6 WING FO OVERFLOW TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95-3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.12	0.28	0.44	0.60	0.76	0.91	1.07	1.23	1.39	1.54	1.70	1.86	50.03
1	2.02	2.18	2.33	2.49	2.65	2.81	2.97	3.12	3.28	3.44	3.60	3.75	50.53
2	3.91	4.07	4.23	4.39	4.55	4.71	4.87	5.03	5.19	5.35	5.51	5.67	51.02
3	5.83	5.99	6.15	6.31	6.47	6.63	6.79	6.95	7.11	7.27	7.43	7.59	51.52
4	7.75	7.91	8.07	8.23	8.39	8.55	8.71	8.87	9.03	9.19	9.34	9.50	52.02
5	9.66	9.82	9.98	10.14	10.30	10.46	10.62	10.78	10.94	11.10	11.26	11.42	52.52
6	11.58	11.74	11.90	12.06	12.22	12.38	12.54	12.70	12.86	13.02	13.18	13.34	53.02
7	13.50	13.66	13.82	13.98	14.14	14.30	14.46	14.62	14.78	14.94	15.09	15.25	53.52
8	15.41	15.57	15.73	15.89	16.05	16.21	16.37	16.53	16.69	16.85	17.01	17.17	54.02
9	17.33	17.49	17.65	17.81	17.97	18.13	18.29	18.45	18.61	18.77	18.93	19.09	54.52
10	19.19	19.27	19.34										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 5/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 4/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.065 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

459

WATERMAN LASH

SOUNDING TABLE

#6 WING FO OVERFLOW TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95-3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	14	15	16	17	18	19	21	22	23	24	25	50.52
2	26	27	28	29	30	31	32	33	34	35	36	37	51.01
3	38	39	41	42	43	44	45	46	47	48	49	50	51.51
4	51	52	53	54	55	56	57	59	60	61	62	63	52.01
5	64	65	66	67	68	69	70	71	72	73	74	76	52.51
6	77	78	79	80	81	82	83	84	85	86	87	88	53.01
7	89	90	91	92	94	95	96	97	98	99	100	101	53.51
8	102	103	104	105	106	107	108	109	110	112	113	114	54.01
9	115	116	117	118	119	120	121	122	123	124	125	126	54.51
10	127	127	128	129									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 1/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 6/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

460

WATERMAN LASH

SOUNDING TABLE

#6 WING FO OVERFLOW TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95-3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.13	0.29	0.44	0.60	0.76	0.91	1.07	1.22	1.38	1.54	1.69	1.85	50.03
1	2.00	2.16	2.32	2.47	2.63	2.78	2.94	3.10	3.25	3.41	3.57	3.72	50.52
2	3.88	4.04	4.20	4.36	4.52	4.68	4.84	5.00	5.16	5.32	5.48	5.64	51.01
3	5.80	5.96	6.12	6.28	6.44	6.60	6.76	6.91	7.07	7.23	7.39	7.55	51.51
4	7.71	7.87	8.03	8.19	8.35	8.51	8.67	8.83	8.99	9.15	9.31	9.47	52.01
5	9.63	9.79	9.95	10.11	10.27	10.43	10.59	10.75	10.91	11.07	11.23	11.39	52.51
6	11.55	11.71	11.87	12.03	12.19	12.35	12.51	12.66	12.82	12.98	13.14	13.30	53.01
7	13.46	13.62	13.78	13.94	14.10	14.26	14.42	14.58	14.74	14.90	15.06	15.22	53.51
8	15.38	15.54	15.70	15.86	16.02	16.18	16.34	16.50	16.66	16.82	16.98	17.14	54.01
9	17.30	17.46	17.62	17.78	17.94	18.10	18.26	18.42	18.57	18.73	18.89	19.05	54.51
10	19.15	19.23	19.31	19.39									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 1/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 6/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

6 WING FO OVERFLOW TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95.3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.12	0.28	0.44	0.60	0.76	0.91	1.07	1.23	1.39	1.54	1.70	1.86	50.03
1	2.02	2.18	2.33	2.49	2.65	2.81	2.97	3.12	3.28	3.44	3.60	3.75	50.53
2	3.91	4.07	4.23	4.39	4.55	4.71	4.87	5.03	5.19	5.35	5.51	5.67	51.02
3	5.83	5.99	6.15	6.31	6.47	6.63	6.79	6.95	7.11	7.27	7.43	7.59	51.52
4	7.75	7.91	8.07	8.23	8.39	8.55	8.71	8.87	9.03	9.19	9.34	9.50	52.02
5	9.66	9.82	9.98	10.14	10.30	10.46	10.62	10.78	10.94	11.10	11.26	11.42	52.52
6	11.58	11.74	11.90	12.06	12.22	12.38	12.54	12.70	12.86	13.02	13.18	13.34	53.02
7	13.50	13.66	13.82	13.98	14.14	14.30	14.46	14.62	14.78	14.94	15.09	15.25	53.52
8	15.41	15.57	15.73	15.89	16.05	16.21	16.37	16.53	16.69	16.85	17.01	17.17	54.02
9	17.33	17.49	17.65	17.81	17.97	18.13	18.29	18.45	18.61	18.77	18.93	19.09	54.52
10	19.19	19.27	19.34										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 5/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 4/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.065 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

6 WING FO OVERFLOW TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95.3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	14	15	17	18	19	20	21	22	23	24	25	50.53
2	26	27	28	29	30	31	32	33	34	35	37	38	51.02
3	39	40	41	42	43	44	45	46	47	48	49	50	51.52
4	51	52	53	55	56	57	58	59	60	61	62	63	52.02
5	64	65	66	67	68	69	70	71	73	74	75	76	52.52
6	77	78	79	80	81	82	83	84	85	86	87	88	53.02
7	89	91	92	93	94	95	96	97	98	99	100	101	53.52
8	102	103	104	105	106	107	109	110	111	112	113	114	54.02
9	115	116	117	118	119	120	121	122	123	124	126	127	54.52
10	127	128	128										55.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 5/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 4/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.065 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

462

WATERMAN LASH

SOUNDING TABLE

6 WING FO OVERFLOW TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95.3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.11	0.27	0.43	0.59	0.75	0.91	1.07	1.23	1.39	1.55	1.71	1.87	50.03
1	2.03	2.19	2.35	2.51	2.67	2.83	2.99	3.15	3.31	3.47	3.63	3.79	50.53
2	3.95	4.11	4.27	4.43	4.59	4.75	4.91	5.07	5.23	5.39	5.55	5.71	51.03
3	5.87	6.02	6.18	6.34	6.50	6.66	6.82	6.98	7.14	7.30	7.46	7.62	51.53
4	7.78	7.94	8.10	8.26	8.42	8.58	8.74	8.90	9.06	9.22	9.38	9.54	52.03
5	9.70	9.86	10.02	10.18	10.34	10.50	10.66	10.82	10.98	11.14	11.30	11.46	52.53
6	11.62	11.77	11.93	12.09	12.25	12.41	12.57	12.73	12.89	13.05	13.21	13.37	53.03
7	13.53	13.69	13.85	14.01	14.17	14.33	14.49	14.65	14.81	14.97	15.13	15.29	53.53
8	15.45	15.61	15.77	15.93	16.09	16.25	16.41	16.57	16.73	16.89	17.05	17.21	54.03
9	17.37	17.52	17.68	17.84	18.00	18.16	18.32	18.48	18.64	18.80	18.96	19.12	54.53
10	19.22	19.30	19.38										55.01

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

6 WING FO OVERFLOW TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95.3 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	15	16	17	18	19	20	21	22	23	24	25	50.53
2	26	27	28	29	30	31	33	34	35	36	37	38	51.03
3	39	40	41	42	43	44	45	46	47	48	49	51	51.53
4	52	53	54	55	56	57	58	59	60	61	62	63	52.03
5	64	65	66	67	69	70	71	72	73	74	75	76	52.53
6	77	78	79	80	81	82	83	84	85	87	88	89	53.03
7	90	91	92	93	94	95	96	97	98	99	100	101	53.53
8	102	103	105	106	107	108	109	110	111	112	113	114	54.03
9	115	116	117	118	119	120	121	123	124	125	126	127	54.53
10	127	128	129										55.01

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 2/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 2/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 59

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WATERMAN LASH

SOUNDING TABLE

6 WING FO OVERFLOW TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95.3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	2	3	4	5	6	7	8	9	10	11	12	50.03
1	13	14	15	16	17	18	19	21	22	23	24	25	50.52
2	26	27	28	29	30	31	32	33	34	35	36	37	51.01
3	38	39	41	42	43	44	45	46	47	48	49	50	51.51
4	51	52	53	54	55	56	57	59	60	61	62	63	52.01
5	64	65	66	67	68	69	70	71	72	73	74	76	52.51
6	77	78	79	80	81	82	83	84	85	86	87	88	53.01
7	89	90	91	92	94	95	96	97	98	99	100	101	53.51
8	102	103	104	105	106	107	108	109	110	112	113	114	54.01
9	115	116	117	118	119	120	121	122	123	124	125	126	54.51
10	127	127	128	129									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 1/8 IN CAP. = 128.66 BARRELS VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 6/8 IN CAP. = 126.09 BARRELS VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

6 WING FO OVERFLOW TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN F.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 95-95.3 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.13	0.29	0.44	0.60	0.76	0.91	1.07	1.22	1.38	1.54	1.69	1.85	50.03
1	2.00	2.16	2.32	2.47	2.63	2.78	2.94	3.10	3.25	3.41	3.57	3.72	50.52
2	3.88	4.04	4.20	4.36	4.52	4.68	4.84	5.00	5.16	5.32	5.48	5.64	51.01
3	5.80	5.96	6.12	6.28	6.44	6.60	6.76	6.91	7.07	7.23	7.39	7.55	51.51
4	7.71	7.87	8.03	8.19	8.35	8.51	8.67	8.83	8.99	9.15	9.31	9.47	52.01
5	9.63	9.79	9.95	10.11	10.27	10.43	10.59	10.75	10.91	11.07	11.23	11.39	52.51
6	11.55	11.71	11.87	12.03	12.19	12.35	12.51	12.66	12.82	12.98	13.14	13.30	53.01
7	13.46	13.62	13.78	13.94	14.10	14.26	14.42	14.58	14.74	14.90	15.06	15.22	53.51
8	15.38	15.54	15.70	15.86	16.02	16.18	16.34	16.50	16.66	16.82	16.98	17.14	54.01
9	17.30	17.46	17.62	17.78	17.94	18.10	18.26	18.42	18.57	18.73	18.89	19.05	54.51
10	19.15	19.23	19.31	19.39									54.99

TANK 100 PERCENT FULL SOUNDING = 10 FT. 3 1/8 IN CAP. = 19.40 F.O.LTON VCG = 55.06 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 9 FT. 10 6/8 IN CAP. = 19.02 F.O.LTON VCG = 54.96 FT.ABV.B.L.

LOWEST POINT OF TANK 50.000 FT. ABV. B.L.

STRIKING PLATE 0.070 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 10.940 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	696	777	858	938	1019	1099	1180	1261	1341	1422	1502	1583	47.86
1	1664	1744	1825	1906	1986	2067	2147	2228	2309	2389	2470	2550	48.36
2	2631	2712	2792	2873	2953	3034	3115	3195	3276	3356	3437	3518	48.86
3	3598	3679	3759	3840	3921	4001	4082	4163	4243	4324	4404	4485	49.36
4	4566	4646	4727	4807	4888	4969	5049	5130	5210	5291	5372	5452	49.86
5	5533	5613	5694	5775	5855	5936	6016	6097	6178	6258	6339	6419	50.36
6	6500	6581	6661	6742	6823	6903	6984	7064	7145	7226	7306	7387	50.86
7	7467	7548	7629	7709	7790	7870	7951	8032	8112	8193	8273	8354	51.36
8	8435												51.86

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 2/8 IN CAP. = 8463.70 GALLONS VCG = 51.88 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 2/8 IN CAP. = 8294.42 GALLONS VCG = 51.79 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL STORAGE TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2.39	2.66	2.94	3.22	3.49	3.77	4.04	4.32	4.60	4.87	5.15	5.43	47.86
1	5.70	5.98	6.25	6.53	6.81	7.08	7.36	7.64	7.91	8.19	8.47	8.74	48.36
2	9.02	9.29	9.57	9.85	10.12	10.40	10.68	10.95	11.23	11.50	11.78	12.06	48.86
3	12.33	12.61	12.89	13.16	13.44	13.71	13.99	14.27	14.54	14.82	15.10	15.37	49.36
4	15.65	15.92	16.20	16.48	16.75	17.03	17.31	17.58	17.86	18.13	18.41	18.69	49.86
5	18.96	19.24	19.52	19.79	20.07	20.35	20.62	20.90	21.17	21.45	21.73	22.00	50.36
6	22.28	22.56	22.83	23.11	23.38	23.66	23.94	24.21	24.49	24.77	25.04	25.32	50.86
7	25.59	25.87	26.15	26.42	26.70	26.98	27.25	27.53	27.80	28.08	28.36	28.63	51.36
8	28.91												51.86

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 2/8 IN CAP. = 29.01 L.O.LTON VCG = 51.88 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 2/8 IN CAP. = 28.43 L.O.LTON VCG = 51.79 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2.86	3.12	3.40	3.67	3.95	4.23	4.50	4.78	5.05	5.33	5.61	5.88	47.93
1	6.16	6.44	6.71	6.99	7.26	7.54	7.82	8.09	8.37	8.65	8.92	9.20	48.43
2	9.48	9.75	10.03	10.30	10.58	10.86	11.13	11.41	11.69	11.96	12.24	12.51	48.93
3	12.79	13.07	13.34	13.62	13.90	14.17	14.45	14.72	15.00	15.28	15.55	15.83	49.43
4	16.11	16.38	16.66	16.93	17.21	17.49	17.76	18.04	18.32	18.59	18.87	19.14	49.93
5	19.42	19.70	19.97	20.25	20.53	20.80	21.08	21.36	21.63	21.91	22.18	22.46	50.43
6	22.74	23.01	23.29	23.57	23.84	24.12	24.39	24.67	24.95	25.22	25.50	25.78	50.93
7	26.05	26.33	26.59	26.85	27.11	27.38	27.64	27.90	28.16	28.42	28.68	28.94	51.43

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 2/8 IN CAP. = 29.01 L.O.LTON VCG = 51.88 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 INCHES CAP. = 28.43 L.O.LTON VCG = 51.79 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.904 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL STORAGE TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	834	911	991	1072	1152	1233	1314	1394	1475	1555	1636	1717	47.93
1	1797	1878	1958	2039	2120	2200	2281	2361	2442	2523	2603	2684	48.43
2	2764	2845	2926	3006	3087	3168	3248	3329	3409	3490	3571	3651	48.93
3	3732	3812	3893	3974	4054	4135	4215	4296	4377	4457	4538	4618	49.43
4	4699	4780	4860	4941	5021	5102	5183	5263	5344	5424	5505	5586	49.93
5	5666	5747	5828	5908	5989	6069	6150	6231	6311	6392	6472	6553	50.43
6	6634	6714	6795	6875	6956	7037	7117	7198	7278	7359	7440	7520	50.93
7	7601	7681	7758	7835	7911	7987	8063	8139	8216	8292	8368	8444	51.43

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 2/8 IN CAP. = 8463.69 GALLONS VCG = 51.88 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 INCHES CAP. = 8294.41 GALLONS VCG = 51.79 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.904 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2.63	2.90	3.17	3.44	3.72	4.00	4.27	4.55	4.83	5.10	5.38	5.65	47.90
1	5.93	6.21	6.48	6.76	7.04	7.31	7.59	7.86	8.14	8.42	8.69	8.97	48.39
2	9.25	9.52	9.80	10.08	10.35	10.63	10.90	11.18	11.46	11.73	12.01	12.29	48.89
3	12.56	12.84	13.11	13.39	13.67	13.94	14.22	14.50	14.77	15.05	15.32	15.60	49.39
4	15.88	16.15	16.43	16.71	16.98	17.26	17.53	17.81	18.09	18.36	18.64	18.92	49.89
5	19.19	19.47	19.74	20.02	20.30	20.57	20.85	21.13	21.40	21.68	21.96	22.23	50.39
6	22.51	22.78	23.06	23.34	23.61	23.89	24.17	24.44	24.72	24.99	25.27	25.55	50.89
7	25.82	26.10	26.38	26.65	26.91	27.18	27.45	27.72	27.99	28.26	28.52	28.79	51.39

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 6/8 IN CAP. = 29.01 L.O.LTON VCG = 51.88 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 5/8 IN CAP. = 28.43 L.O.LTON VCG = 51.79 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.812 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL STORAGE TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	767	846	925	1005	1086	1166	1247	1327	1408	1489	1569	1650	47.90
1	1730	1811	1892	1972	2053	2133	2214	2295	2375	2456	2537	2617	48.39
2	2698	2778	2859	2940	3020	3101	3181	3262	3343	3423	3504	3584	48.89
3	3665	3746	3826	3907	3987	4068	4149	4229	4310	4390	4471	4552	49.39
4	4632	4713	4793	4874	4955	5035	5116	5197	5277	5358	5438	5519	49.89
5	5600	5680	5761	5841	5922	6003	6083	6164	6244	6325	6406	6486	50.39
6	6567	6647	6728	6809	6889	6970	7050	7131	7212	7292	7373	7454	50.89
7	7534	7615	7695	7774	7852	7931	8009	8087	8166	8244	8322	8400	51.39

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 6/8 IN CAP. = 8463.69 GALLONS VCG = 51.88 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 5/8 IN CAP. = 8294.41 GALLONS VCG = 51.79 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.812 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL STORAGE DG TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.35	0.40	0.44	0.48	0.52	0.56	0.60	0.64	0.68	0.72	0.76	0.80	47.86
1	0.85	0.89	0.93	0.97	1.01	1.05	1.09	1.13	1.17	1.21	1.26	1.30	48.36
2	1.34	1.38	1.42	1.46	1.50	1.54	1.58	1.62	1.67	1.71	1.75	1.79	48.86
3	1.83	1.87	1.91	1.95	1.99	2.03	2.08	2.12	2.16	2.20	2.24	2.28	49.36
4	2.32	2.36	2.40	2.44	2.49	2.53	2.57	2.61	2.65	2.69	2.73	2.77	49.86
5	2.81	2.85	2.89	2.94	2.98	3.02	3.06	3.10	3.14	3.18	3.22	3.26	50.36
6	3.30	3.35	3.39	3.43	3.47	3.51	3.55	3.59	3.63	3.67	3.71	3.76	50.86
7	3.80	3.84	3.88	3.92	3.96	4.00	4.04	4.08	4.12	4.17	4.21	4.25	51.36
8	4.29												51.86

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 2/8 IN CAP. = 4.30 L.O.LTON VCG = 51.87 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 2/8 IN CAP. = 4.22 L.O.LTON VCG = 51.79 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL STORAGE DG TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	103	115	127	139	151	163	175	187	199	211	223	235	47.86
1	247	259	271	283	295	307	319	330	342	354	366	378	48.36
2	390	402	414	426	438	450	462	474	486	498	510	522	48.86
3	534	546	558	570	582	594	605	617	629	641	653	665	49.36
4	677	689	701	713	725	737	749	761	773	785	797	809	49.86
5	821	833	845	857	869	880	892	904	916	928	940	952	50.36
6	964	976	988	1000	1012	1024	1036	1048	1060	1072	1084	1096	50.86
7	1108	1120	1132	1144	1155	1167	1179	1191	1203	1215	1227	1239	51.36
8	1251												51.86

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 2/8 IN CAP. = 1255.45 GALLONS VCG = 51.87 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 2/8 IN CAP. = 1230.34 GALLONS VCG = 51.79 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL STORAGE DG TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.39	0.43	0.47	0.51	0.55	0.59	0.63	0.67	0.72	0.76	0.80	0.84	47.90
1	0.88	0.92	0.96	1.00	1.04	1.08	1.13	1.17	1.21	1.25	1.29	1.33	48.39
2	1.37	1.41	1.45	1.49	1.54	1.58	1.62	1.66	1.70	1.74	1.78	1.82	48.89
3	1.86	1.90	1.95	1.99	2.03	2.07	2.11	2.15	2.19	2.23	2.27	2.31	49.39
4	2.36	2.40	2.44	2.48	2.52	2.56	2.60	2.64	2.68	2.72	2.76	2.81	49.89
5	2.85	2.89	2.93	2.97	3.01	3.05	3.09	3.13	3.17	3.22	3.26	3.30	50.39
6	3.34	3.38	3.42	3.46	3.50	3.54	3.58	3.63	3.67	3.71	3.75	3.79	50.89
7	3.83	3.87	3.91	3.95	3.99	4.03	4.07	4.11	4.15	4.19	4.23	4.27	51.39

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 6/8 IN CAP. = 4.30 L.O.LTON VCG = 51.87 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 5/8 IN CAP. = 4.22 L.O.LTON VCG = 51.79 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.812 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL STORAGE DG TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	114	126	137	149	161	173	185	197	209	221	233	245	47.90
1	257	269	281	293	305	316	328	340	352	364	376	388	48.39
2	400	412	424	436	448	460	472	484	496	508	520	532	48.89
3	544	556	568	580	591	603	615	627	639	651	663	675	49.39
4	687	699	711	723	735	747	759	771	783	795	807	819	49.89
5	831	843	855	866	878	890	902	914	926	938	950	962	50.39
6	974	986	998	1010	1022	1034	1046	1058	1070	1082	1094	1106	50.89
7	1118	1130	1141	1153	1165	1176	1188	1200	1211	1223	1234	1246	51.39

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 6/8 IN CAP. = 1255.45 GALLONS VCG = 51.87 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 5/8 IN CAP. = 1230.34 GALLONS VCG = 51.79 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.812 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL GRAVITY TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	310	345	381	417	453	489	524	560	596	632	668	704	47.86
1	739	775	811	847	883	919	954	990	1026	1062	1098	1133	48.36
2	1169	1205	1241	1277	1313	1348	1384	1420	1456	1492	1528	1563	48.86
3	1599	1635	1671	1707	1743	1778	1814	1850	1886	1922	1957	1993	49.36
4	2029	2065	2101	2137	2172	2208	2244	2280	2316	2352	2387	2423	49.86
5	2459	2495	2531	2567	2602	2638	2674	2710	2746	2781	2817	2853	50.36
6	2889	2925	2961	2996	3032	3068	3104	3140	3176	3211	3247	3283	50.86
7	3319	3355	3390	3426	3462	3498	3534	3570	3605	3641	3677	3713	51.36
8	3749	3785	3820	3856	3892	3928	3964	4000	4035	4071			51.86

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 4406.50 GALLONS VCG = 52.62 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 3/8 IN CAP. = 4318.36 GALLONS VCG = 52.52 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL GRAVITY TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90S

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.06	1.18	1.31	1.43	1.55	1.67	1.80	1.92	2.04	2.17	2.29	2.41	47.86
1	2.53	2.66	2.78	2.90	3.03	3.15	3.27	3.39	3.52	3.64	3.76	3.89	48.36
2	4.01	4.13	4.25	4.38	4.50	4.62	4.74	4.87	4.99	5.11	5.24	5.36	48.86
3	5.48	5.60	5.73	5.85	5.97	6.10	6.22	6.34	6.46	6.59	6.71	6.83	49.36
4	6.95	7.08	7.20	7.32	7.45	7.57	7.69	7.81	7.94	8.06	8.18	8.31	49.86
5	8.43	8.55	8.67	8.80	8.92	9.04	9.17	9.29	9.41	9.53	9.66	9.78	50.36
6	9.90	10.02	10.15	10.27	10.39	10.52	10.64	10.76	10.88	11.01	11.13	11.25	50.86
7	11.38	11.50	11.62	11.74	11.87	11.99	12.11	12.23	12.36	12.48	12.60	12.73	51.36
8	12.85	12.97	13.09	13.22	13.34	13.46	13.59	13.71	13.83	13.95			51.86

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 15.10 L.O.LTON VCG = 52.62 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 3/8 IN CAP. = 14.80 L.O.LTON VCG = 52.52 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL STORAGE DG TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	124	135	147	159	171	183	195	207	219	231	243	255	47.93
1	267	279	290	302	314	326	338	350	362	374	386	398	48.43
2	410	422	434	446	458	470	482	494	506	518	530	542	48.93
3	554	566	577	589	601	613	625	637	649	661	673	685	49.43
4	697	709	721	733	745	757	769	781	793	805	817	829	49.93
5	841	852	864	876	888	900	912	924	936	948	960	972	50.43
6	984	996	1008	1020	1032	1044	1056	1068	1080	1092	1104	1116	50.93
7	1127	1139	1151	1162	1173	1185	1196	1207	1219	1230	1241	1253	51.43

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 2/8 IN CAP. = 1255.45 GALLONS VCG = 51.87 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 INCHES CAP. = 1230.34 GALLONS VCG = 51.79 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.904 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

SOUNDING TABLE

WATERMAN LASH — LUBE OIL STORAGE DG TANK P — TRIM 10.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 89-90 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.42	0.46	0.50	0.54	0.59	0.63	0.67	0.71	0.75	0.79	0.83	0.87	47.93
1	0.91	0.95	1.00	1.04	1.08	1.12	1.16	1.20	1.24	1.28	1.32	1.36	48.43
2	1.41	1.45	1.49	1.53	1.57	1.61	1.65	1.69	1.73	1.77	1.82	1.86	48.93
3	1.90	1.94	1.98	2.02	2.06	2.10	2.14	2.18	2.23	2.27	2.31	2.35	49.43
4	2.39	2.43	2.47	2.51	2.55	2.59	2.63	2.68	2.72	2.76	2.80	2.84	49.93
5	2.88	2.92	2.96	3.00	3.04	3.09	3.13	3.17	3.21	3.25	3.29	3.33	50.43
6	3.37	3.41	3.45	3.50	3.54	3.58	3.62	3.66	3.70	3.74	3.78	3.82	50.93
7	3.86	3.91	3.94	3.98	4.02	4.06	4.10	4.14	4.18	4.22	4.25	4.29	51.43

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 2/8 IN CAP. = 4.30 L.O.LTON VCG = 51.87 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 INCHES CAP. = 4.22 L.O.LTON VCG = 51.79 FT.ABV.B.L.
LOWEST POINT OF TANK 47.500 FT. ABV. B.L. STRIKING PLATE 0.904 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.61

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL GRAVITY TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.16	1.29	1.41	1.53	1.65	1.78	1.90	2.02	2.14	2.27	2.39	2.51	47.90
1	2.64	2.76	2.88	3.00	3.13	3.25	3.37	3.50	3.62	3.74	3.86	3.99	48.39
2	4.11	4.23	4.36	4.48	4.60	4.72	4.85	4.97	5.09	5.21	5.34	5.46	48.89
3	5.58	5.71	5.83	5.95	6.07	6.20	6.32	6.44	6.57	6.69	6.81	6.93	49.39
4	7.06	7.18	7.30	7.42	7.55	7.67	7.79	7.92	8.04	8.16	8.28	8.41	49.89
5	8.53	8.65	8.78	8.90	9.02	9.14	9.27	9.39	9.51	9.64	9.76	9.88	50.39
6	10.00	10.13	10.25	10.37	10.49	10.62	10.74	10.86	10.99	11.11	11.23	11.35	50.89
7	11.48	11.60	11.72	11.85	11.97	12.09	12.21	12.33	12.46	12.58	12.70	12.82	51.39
8	12.94	13.06	13.18	13.31	13.43	13.55	13.67	13.79	13.91	14.03			51.89

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 15.10 L.O.LTON VCG = 52.63 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 7/8 IN CAP. = 14.80 L.O.LTON VCG = 52.52 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.812 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL GRAVITY TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	339	375	411	447	482	518	554	590	626	662	697	733	47.90
1	769	805	841	877	912	948	984	1020	1056	1092	1127	1163	48.39
2	1199	1235	1271	1306	1342	1378	1414	1450	1486	1521	1557	1593	48.89
3	1629	1665	1701	1736	1772	1808	1844	1880	1915	1951	1987	2023	49.39
4	2059	2095	2130	2166	2202	2238	2274	2310	2345	2381	2417	2453	49.89
5	2489	2525	2560	2596	2632	2668	2704	2739	2775	2811	2847	2883	50.39
6	2919	2954	2990	3026	3062	3098	3134	3169	3205	3241	3277	3313	50.89
7	3348	3384	3420	3456	3492	3528	3563	3599	3634	3669	3705	3740	51.39
8	3776	3811	3847	3882	3917	3953	3988	4024	4059	4094			51.89

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 4406.49 GALLONS VCG = 52.63 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 7/8 IN CAP. = 4318.36 GALLONS VCG = 52.52 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.812 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL GRAVITY TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.26	1.39	1.51	1.63	1.76	1.88	2.00	2.12	2.25	2.37	2.49	2.61	47.93
1	2.74	2.86	2.98	3.11	3.23	3.35	3.47	3.60	3.72	3.84	3.97	4.09	48.43
2	4.21	4.33	4.46	4.58	4.70	4.83	4.95	5.07	5.19	5.32	5.44	5.56	48.93
3	5.68	5.81	5.93	6.05	6.18	6.30	6.42	6.54	6.67	6.79	6.91	7.04	49.43
4	7.16	7.28	7.40	7.53	7.65	7.77	7.89	8.02	8.14	8.26	8.39	8.51	49.93
5	8.63	8.75	8.88	9.00	9.12	9.25	9.37	9.49	9.61	9.74	9.86	9.98	50.43
6	10.11	10.23	10.35	10.47	10.60	10.72	10.84	10.96	11.09	11.21	11.33	11.46	50.93
7	11.58	11.70	11.82	11.95	12.07	12.19	12.31	12.43	12.55	12.67	12.79	12.91	51.43
8	13.03	13.15	13.27	13.39	13.51	13.63	13.75	13.87	13.99	14.11			51.92

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 15.10 L.O.LTON VCG = 52.63 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 2/8 IN CAP. = 14.80 L.O.LTON VCG = 52.52 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.904 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL GRAVITY TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90S

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	369	405	440	476	512	548	584	620	655	691	727	763	47.93
1	799	835	870	906	942	978	1014	1050	1085	1121	1157	1193	48.43
2	1229	1264	1300	1336	1372	1408	1444	1479	1515	1551	1587	1623	48.93
3	1659	1694	1730	1766	1802	1838	1874	1909	1945	1981	2017	2053	49.43
4	2088	2124	2160	2196	2232	2268	2303	2339	2375	2411	2447	2483	49.93
5	2518	2554	2590	2626	2662	2697	2733	2769	2805	2841	2877	2912	50.43
6	2948	2984	3020	3056	3092	3127	3163	3199	3235	3271	3307	3342	50.93
7	3378	3414	3450	3486	3521	3557	3592	3627	3662	3697	3732	3767	51.43
8	3802	3837	3872	3907	3942	3977	4012	4047	4082	4117			51.92

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 4406.49 GALLONS VCG = 52.63 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 2/8 IN CAP. = 4318.36 GALLONS VCG = 52.52 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.904 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL SETTLING TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	209	232	254	294	340	385	431	477	523	569	614	660	47.92
1	706	752	798	856	920	983	1047	1110	1174	1237	1300	1364	48.45
2	1427	1491	1554	1618	1682	1746	1810	1875	1939	2003	2067	2131	49.08
3	2195	2260	2324	2388	2452	2516	2580	2645	2709	2773	2837	2901	49.68
4	2966	3030	3094	3158	3222	3286	3351	3415	3479	3543	3607	3671	50.23
5	3736	3800	3864	3928	3992	4056	4121	4185	4249	4313	4377	4441	50.76
6	4506	4570	4634	4698	4762	4827	4891	4955	5019	5083	5147	5212	51.27
7	5276	5340	5404	5467	5529	5591	5654	5716	5778	5841	5903	5965	51.79

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 6/8 IN CAP. = 6015.77 GALLONS VCG = 52.28 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 7/8 IN CAP. = 5895.45 GALLONS VCG = 52.20 FT.ABV.B.L.

LOWEST POINT OF TANK 47.534 FT. ABV. B.L.

STRIKING PLATE 0.777 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL SETTLING TANK P

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.72	0.79	0.87	1.01	1.16	1.32	1.48	1.63	1.79	1.95	2.11	2.26	47.92
1	2.42	2.58	2.73	2.94	3.15	3.37	3.59	3.80	4.02	4.24	4.46	4.67	48.45
2	4.89	5.11	5.33	5.55	5.77	5.99	6.21	6.43	6.65	6.87	7.09	7.30	49.08
3	7.52	7.74	7.96	8.18	8.40	8.62	8.84	9.06	9.28	9.50	9.72	9.94	49.68
4	10.16	10.38	10.60	10.82	11.04	11.26	11.48	11.70	11.92	12.14	12.36	12.58	50.23
5	12.80	13.02	13.24	13.46	13.68	13.90	14.12	14.34	14.56	14.78	15.00	15.22	50.76
6	15.44	15.66	15.88	16.10	16.32	16.54	16.76	16.98	17.20	17.42	17.64	17.86	51.27
7	18.08	18.30	18.52	18.74	18.95	19.16	19.38	19.59	19.81	20.02	20.23	20.45	51.79

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 6/8 IN CAP. = 20.62 L.O.LTON VCG = 52.28 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 7/8 IN CAP. = 20.21 L.O.LTON VCG = 52.20 FT.ABV.B.L.

LOWEST POINT OF TANK 47.534 FT. ABV. B.L.

STRIKING PLATE 0.777 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL SETTLING TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	197	220	242	265	303	349	395	441	487	534	580	626	47.89
1	672	718	764	810	867	931	994	1058	1121	1185	1248	1311	48.42
2	1375	1438	1502	1565	1629	1693	1757	1821	1886	1950	2014	2078	49.03
3	2142	2207	2271	2335	2399	2463	2527	2592	2656	2720	2784	2848	49.64
4	2912	2977	3041	3105	3169	3233	3297	3362	3426	3490	3554	3618	50.19
5	3682	3747	3811	3875	3939	4003	4067	4132	4196	4260	4324	4388	50.72
6	4453	4517	4581	4645	4709	4773	4838	4902	4966	5030	5094	5158	51.24
7	5223	5287	5351	5415	5479	5543	5608	5672	5736	5800	5864	5928	51.75
8	5993												52.26

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 2/8 IN CAP. = 6015.77 GALLONS VCG = 52.28 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 3/8 IN CAP. = 5895.45 GALLONS VCG = 52.20 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

LUBE OIL SETTLING TANK P

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.67	0.75	0.83	0.91	1.04	1.20	1.35	1.51	1.67	1.83	1.99	2.14	47.89
1	2.30	2.46	2.62	2.78	2.97	3.19	3.41	3.63	3.84	4.06	4.28	4.49	48.42
2	4.71	4.93	5.15	5.36	5.58	5.80	6.02	6.24	6.46	6.68	6.90	7.12	49.03
3	7.34	7.56	7.78	8.00	8.22	8.44	8.66	8.88	9.10	9.32	9.54	9.76	49.64
4	9.98	10.20	10.42	10.64	10.86	11.08	11.30	11.52	11.74	11.96	12.18	12.40	50.19
5	12.62	12.84	13.06	13.28	13.50	13.72	13.94	14.16	14.38	14.60	14.82	15.04	50.72
6	15.26	15.48	15.70	15.92	16.14	16.36	16.58	16.80	17.02	17.24	17.46	17.68	51.24
7	17.90	18.12	18.34	18.56	18.78	19.00	19.22	19.44	19.66	19.88	20.10	20.32	51.75
8	20.54												52.26

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 2/8 IN CAP. = 20.62 L.O.LTON VCG = 52.28 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 3/8 IN CAP. = 20.21 L.O.LTON VCG = 52.20 FT.ABV.B.L.

LOWEST POINT OF TANK 47.500 FT. ABV. B.L.

STRIKING PLATE 0.720 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.62

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SOUNDING TABLE

WATERMAN LASH

LUBE OIL SETTLING TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.76	0.83	0.98	1.13	1.29	1.44	1.60	1.76	1.91	2.07	2.22	2.38	47.95
1	2.53	2.69	2.90	3.12	3.33	3.55	3.77	3.98	4.20	4.42	4.64	4.85	48.48
2	5.07	5.29	5.51	5.73	5.95	6.17	6.39	6.61	6.83	7.05	7.27	7.49	49.12
3	7.71	7.93	8.15	8.37	8.59	8.81	9.03	9.25	9.47	9.69	9.91	10.13	49.72
4	10.35	10.57	10.79	11.01	11.23	11.45	11.67	11.89	12.11	12.33	12.55	12.77	50.26
5	12.99	13.21	13.43	13.65	13.87	14.09	14.31	14.53	14.75	14.97	15.19	15.41	50.79
6	15.63	15.85	16.07	16.29	16.51	16.72	16.94	17.16	17.38	17.60	17.82	18.04	51.31
7	18.26	18.48	18.69	18.90	19.11	19.32	19.53	19.73	19.94	20.15	20.36	20.57	51.82

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 2/8 IN CAP. = 20.62 L.O.LTON VCG = 52.28 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 2/8 IN CAP. = 20.21 L.O.LTON VCG = 52.20 FT.ABV.B.L.

LOWEST POINT OF TANK 47.569 FT. ABV. B.L.

STRIKING PLATE 0.835 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

LUBE OIL SETTLING TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 89-90 P

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	221	243	285	330	376	421	467	512	558	603	648	694	47.95
1	739	785	846	909	972	1036	1099	1162	1226	1289	1353	1416	48.48
2	1479	1543	1607	1671	1735	1799	1864	1928	1992	2056	2120	2184	49.12
3	2249	2313	2377	2441	2505	2569	2634	2698	2762	2826	2890	2954	49.72
4	3019	3083	3147	3211	3275	3340	3404	3468	3532	3596	3660	3725	50.26
5	3789	3853	3917	3981	4045	4110	4174	4238	4302	4366	4430	4495	50.79
6	4559	4623	4687	4751	4815	4880	4944	5008	5072	5136	5201	5265	51.31
7	5329	5393	5454	5515	5576	5636	5697	5758	5818	5879	5940	6000	51.82

TANK 100 PERCENT FULL SOUNDING = 7 FT. 11 2/8 IN CAP. = 6015.77 GALLONS VCG = 52.28 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 2/8 IN CAP. = 5895.45 GALLONS VCG = 52.20 FT.ABV.B.L.

LOWEST POINT OF TANK 47.569 FT. ABV. B.L.

STRIKING PLATE 0.835 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.780 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

MAIN LUBE OIL SUMP TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 93-94

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0	3	5	8	11	13	16	19	21	24	27	29	6.01
1	32	35	37	40	44	48	52	82	111	141	199	256	6.51
2	314	386	457	529	610	691	772	850	925	1001	1076	1151	7.62
3	1225	1300	1375	1450	1524	1599	1674	1748	1823	1897	1972	2046	8.28
4	2120	2195	2269	2343	2417	2491	2566	2640	2714	2788	2862	2936	8.80
5	3009	3083	3157	3231	3304	3378	3452	3525	3599	3672	3746	3819	9.30
6	3893	3966	4039	4113	4186	4259	4332	4405	4478	4551	4624	4697	9.80
7	4770	4843	4916	4989	5062	5134	5207	5280	5352	5425	5497	5570	10.30
8	5607	5642											10.78

TANK 100 PERCENT FULL SOUNDING = 8 FT. 1 3/8 IN CAP. = 5658.18 GALLONS VCG = 10.81 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 5/8 IN CAP. = 5545.02 GALLONS VCG = 10.74 FT.ABV.B.L.

LOWEST POINT OF TANK 6.010 FT. ABV. B.L.

STRIKING PLATE 0.0 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.490 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

MAIN LUBE OIL SUMP TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 93-94

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.0	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	6.01
1	0.11	0.12	0.13	0.14	0.15	0.16	0.18	0.28	0.38	0.48	0.68	0.88	6.51
2	1.08	1.32	1.57	1.81	2.09	2.37	2.65	2.91	3.17	3.43	3.69	3.94	7.62
3	4.20	4.46	4.71	4.97	5.22	5.48	5.74	5.99	6.25	6.50	6.76	7.01	8.28
4	7.27	7.52	7.78	8.03	8.29	8.54	8.79	9.05	9.30	9.55	9.81	10.06	8.80
5	10.31	10.57	10.82	11.07	11.33	11.58	11.83	12.08	12.34	12.59	12.84	13.09	9.30
6	13.34	13.59	13.84	14.10	14.35	14.60	14.85	15.10	15.35	15.60	15.85	16.10	9.80
7	16.35	16.60	16.85	17.10	17.35	17.60	17.85	18.10	18.34	18.59	18.84	19.09	10.30
8	19.22	19.34											10.78

TANK 100 PERCENT FULL SOUNDING = 8 FT. 1 3/8 IN CAP. = 19.39 L.O.LTON VCG = 10.81 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 5/8 IN CAP. = 19.01 L.O.LTON VCG = 10.74 FT.ABV.B.L.

LOWEST POINT OF TANK 6.010 FT. ABV. B.L.

STRIKING PLATE 0.0 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.490 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

MAIN LUBE OIL SUMP TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 93-94

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.01	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.09	0.10	0.11	6.05
1	0.12	0.13	0.14	0.14	0.16	0.23	0.29	0.38	0.56	0.75	0.94	1.18	6.55
2	1.43	1.68	1.95	2.23	2.51	2.77	3.03	3.29	3.55	3.80	4.06	4.31	7.72
3	4.57	4.83	5.08	5.34	5.59	5.85	6.11	6.36	6.62	6.87	7.13	7.38	8.34
4	7.64	7.89	8.14	8.40	8.65	8.91	9.16	9.41	9.67	9.92	10.17	10.43	8.86
5	10.68	10.93	11.19	11.44	11.69	11.94	12.20	12.45	12.70	12.95	13.20	13.45	9.36
6	13.71	13.96	14.21	14.46	14.71	14.96	15.21	15.46	15.71	15.96	16.21	16.46	9.86
7	16.71	16.96	17.21	17.46	17.71	17.96	18.21	18.45	18.70	18.93	19.07	19.20	10.36
8	19.34												10.80

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 3/8 IN CAP. = 19.39 L.O.LTON VCG = 10.81 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 4/8 IN CAP. = 19.01 L.O.LTON VCG = 10.74 FT.ABV.B.L.

LOWEST POINT OF TANK 6.102 FT. ABV. B.L.

STRIKING PLATE 0.092 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.490 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

MAIN LUBE OIL SUMP TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 93-94

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3	5	8	10	13	16	18	21	24	27	29	32	6.05
1	35	37	40	42	48	66	85	111	164	218	275	346	6.55
2	416	489	570	651	733	808	884	959	1034	1109	1184	1259	7.72
3	1334	1408	1483	1558	1632	1707	1781	1856	1930	2005	2079	2153	8.34
4	2228	2302	2376	2450	2525	2599	2673	2747	2821	2895	2969	3042	8.86
5	3116	3190	3264	3337	3411	3485	3558	3632	3705	3779	3852	3925	9.36
6	3999	4072	4145	4218	4292	4365	4438	4511	4584	4657	4730	4803	9.86
7	4876	4948	5021	5094	5167	5239	5312	5384	5457	5524	5563	5602	10.36
8	5642												10.80

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 3/8 IN CAP. = 5658.18 GALLONS VCG = 10.81 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 9 4/8 IN CAP. = 5545.02 GALLONS VCG = 10.74 FT.ABV.B.L.

LOWEST POINT OF TANK 6.102 FT. ABV. B.L.

STRIKING PLATE 0.092 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.490 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

MAIN LUBE OIL SUMP TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN L.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 93-94

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.00	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.10	6.03
1	0.11	0.12	0.13	0.14	0.15	0.16	0.25	0.33	0.43	0.62	0.81	1.01	6.53
2	1.25	1.50	1.74	2.02	2.30	2.58	2.84	3.10	3.36	3.62	3.87	4.13	7.67
3	4.39	4.64	4.90	5.15	5.41	5.67	5.92	6.18	6.43	6.69	6.94	7.20	8.31
4	7.45	7.71	7.96	8.21	8.47	8.72	8.98	9.23	9.48	9.74	9.99	10.24	8.83
5	10.50	10.75	11.00	11.26	11.51	11.76	12.01	12.27	12.52	12.77	13.02	13.27	9.33
6	13.52	13.78	14.03	14.28	14.53	14.78	15.03	15.28	15.53	15.78	16.03	16.28	9.83
7	16.53	16.78	17.03	17.28	17.53	17.78	18.03	18.28	18.52	18.77	19.01	19.14	10.33
8	19.27												10.79

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 7/8 IN CAP. = 19.39 L.O.LTON VCG = 10.81 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 INCHES CAP. = 19.01 L.O.LTON VCG = 10.74 FT.ABV.B.L.

LOWEST POINT OF TANK 6.056 FT. ABV. B.L.

STRIKING PLATE 0.046 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.490 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

MAIN LUBE OIL SUMP TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 93-94

INCHES

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	4	7	9	12	15	17	20	23	25	28	31	6.03
1	33	36	39	41	43	47	72	97	126	181	237	294	6.53
2	366	437	509	590	671	752	829	905	980	1055	1130	1205	7.67
3	1280	1354	1429	1504	1578	1653	1728	1802	1877	1951	2025	2100	8.31
4	2174	2248	2323	2397	2471	2545	2619	2693	2767	2841	2915	2989	8.83
5	3063	3137	3210	3284	3358	3431	3505	3579	3652	3726	3799	3872	9.33
6	3946	4019	4092	4166	4239	4312	4385	4458	4531	4604	4677	4750	9.83
7	4823	4896	4969	5041	5114	5187	5259	5332	5405	5477	5547	5585	10.33
8	5623												10.79

TANK 100 PERCENT FULL SOUNDING = 8 FT. 0 7/8 IN CAP. = 5658.18 GALLONS VCG = 10.81 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 7 FT. 10 INCHES CAP. = 5545.02 GALLONS VCG = 10.74 FT.ABV.B.L.

LOWEST POINT OF TANK 6.056 FT. ABV. B.L.

STRIKING PLATE 0.046 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 8.490 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	45	54	63	73	82	91	100	109	119	128	137	146	5.02
1	155	165	174	184	193	203	212	222	231	241	254	291	5.66
2	327	364	400	437	474	510	547	583	620	657	693	730	6.30
3	766	803	840	878	916	955	993	1031	1070	1108	1147	1185	6.91
4	1232	1293	1354	1414	1475	1536	1597	1658	1718	1779	1840	1901	7.55
5	1961	2022	2083	2144	2206	2268	2330	2391	2453	2515	2577	2639	8.16
6	2701	2773	2852	2931	3010	3089	3168	3247	3326	3405	3484	3563	8.78
7	3642	3721	3800	3879	3958	4039	4119	4199	4279	4360	4440	4520	9.39
8	4600	4683	4777	4870	4964	5057	5151	5244	5338	5431	5525	5618	10.00
9	5712	5805	5899	5992	6086	6180	6274	6368	6462	6556	6650	6744	10.61
10	6838	6933	7038	7142	7247	7351	7456	7560	7665	7769	7874	7978	11.21
11	8083	8187	8292	8396	8501	8605	8710	8814	8919	9023	9127	9232	11.82
12	9336	9442	9554	9667	9780	9893	10005	10118	10231	10343	10456	10569	12.42
13	10682	10794	10907	11020	11132	11245	11358	11471	11583	11696	11809	11922	13.01
14	12034	12148	12267	12386	12505	12624	12744	12863	12982	13101	13220	13340	13.60
15	13459	13578	13697	13816	13935	14055	14174	14293	14412	14531	14651	14770	14.18

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 17585.98 GALLONS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 17234.26 GALLONS VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.759 FT. ABV. B.L.
STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 1 OF 2
C7-1000

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SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	14889	15009	15133	15257	15380	15504	15628	15752	15876	16000	16124	16248	14.77
17	16372	16496	16620	16744	16868	16992	17116	17240	17364	17488			15.35

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 17585.98 GALLONS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 17234.26 GALLONS VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.759 FT. ABV. B.L.
STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 2 OF 2
C7-1000

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SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.15	0.18	0.21	0.24	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48	5.02
1	0.51	0.54	0.57	0.60	0.63	0.66	0.69	0.72	0.75	0.78	0.83	0.95	5.66
2	1.07	1.19	1.30	1.42	1.54	1.66	1.78	1.90	2.02	2.14	2.26	2.38	6.30
3	2.50	2.62	2.73	2.86	2.98	3.11	3.23	3.36	3.48	3.61	3.73	3.86	6.91
4	4.01	4.21	4.41	4.61	4.80	5.00	5.20	5.40	5.60	5.79	5.99	6.19	7.55
5	6.39	6.59	6.78	6.98	7.18	7.39	7.59	7.79	7.99	8.19	8.39	8.60	8.16
6	8.80	9.03	9.29	9.55	9.80	10.06	10.32	10.58	10.83	11.09	11.35	11.61	8.78
7	11.86	12.12	12.38	12.63	12.89	13.15	13.42	13.68	13.94	14.20	14.46	14.72	9.39
8	14.98	15.25	15.56	15.86	16.17	16.47	16.78	17.08	17.39	17.69	17.99	18.30	10.00
9	18.60	18.91	19.21	19.52	19.82	20.13	20.43	20.74	21.05	21.35	21.66	21.97	10.61
10	22.27	22.58	22.92	23.26	23.60	23.94	24.28	24.62	24.96	25.30	25.65	25.99	11.21
11	26.33	26.67	27.01	27.35	27.69	28.03	28.37	28.71	29.05	29.39	29.73	30.07	11.82
12	30.41	30.75	31.12	31.49	31.85	32.22	32.59	32.96	33.32	33.69	34.06	34.42	12.42
13	34.79	35.16	35.53	35.89	36.26	36.63	36.99	37.36	37.73	38.10	38.46	38.83	13.01
14	39.20	39.57	39.95	40.34	40.73	41.12	41.51	41.90	42.28	42.67	43.06	43.45	13.60
15	43.84	44.22	44.61	45.00	45.39	45.78	46.17	46.55	46.94	47.33	47.72	48.11	14.18

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.759 FT. ABV. B.L.
STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 1 OF 2
C7-1000

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SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 0.0 FT. AFT, LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	48.50	48.88	49.29	49.69	50.10	50.50	50.90	51.31	51.71	52.11	52.52	52.92	14.77
17	53.33	53.73	54.13	54.54	54.94	55.34	55.75	56.15	56.56	56.96			15.35

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.759 FT. ABV. B.L.
STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 2 OF 2
C7-1000

504

SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	48.69	49.08	49.48	49.87	50.27	50.66	51.05	51.45	51.84	52.23	52.63	53.02	14.79
17	53.41	53.81	54.20	54.59	54.99	55.38	55.77	56.17	56.56	56.96			15.36

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.851 FT. ABV. B.L.
STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 2 OF 2
C7-1000

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SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.14	0.17	0.20	0.23	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.46	5.02
1	0.49	0.52	0.55	0.58	0.62	0.65	0.68	0.71	0.74	0.79	0.91	1.03	5.67
2	1.15	1.26	1.38	1.50	1.61	1.73	1.85	1.97	2.08	2.20	2.32	2.44	6.33
3	2.55	2.67	2.79	2.91	3.03	3.16	3.28	3.40	3.53	3.65	3.77	3.93	6.94
4	4.13	4.33	4.52	4.72	4.92	5.11	5.31	5.51	5.70	5.90	6.10	6.29	7.57
5	6.49	6.69	6.88	7.08	7.28	7.48	7.68	7.88	8.08	8.28	8.48	8.68	8.18
6	8.92	9.18	9.43	9.69	9.94	10.20	10.46	10.71	10.97	11.23	11.48	11.74	8.80
7	11.99	12.25	12.51	12.76	13.02	13.28	13.54	13.80	14.06	14.32	14.58	14.84	9.41
8	15.11	15.42	15.72	16.03	16.33	16.63	16.94	17.24	17.54	17.85	18.15	18.46	10.03
9	18.76	19.06	19.37	19.67	19.97	20.28	20.58	20.89	21.20	21.50	21.81	22.11	10.63
10	22.42	22.76	23.10	23.44	23.78	24.12	24.46	24.80	25.14	25.48	25.82	26.16	11.24
11	26.50	26.84	27.18	27.52	27.86	28.20	28.54	28.88	29.22	29.56	29.90	30.24	11.84
12	30.58	30.95	31.31	31.68	32.05	32.41	32.78	33.15	33.51	33.88	34.25	34.61	12.44
13	34.98	35.35	35.71	36.08	36.45	36.81	37.18	37.55	37.91	38.28	38.65	39.01	13.03
14	39.38	39.77	40.16	40.55	40.93	41.32	41.71	42.10	42.49	42.87	43.26	43.65	13.63
15	44.04	44.42	44.81	45.20	45.59	45.98	46.36	46.75	47.14	47.53	47.91	48.30	14.21

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.851 FT. ABV. B.L.
STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 1 OF 2
C7-1000

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SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	14949	15070	15191	15312	15432	15553	15674	15795	15916	16037	16157	16278	14.79
17	16399	16520	16641	16761	16882	17003	17124	17245	17366	17486			15.36

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 17585.98 GALLONS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 17234.26 GALLONS VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.851 FT. ABV. B.L.
STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 2 OF 2
C7-1000

501

SOUNDING TABLE

WATERMAN LASH — DIESEL OIL TANK P — TRIM 5.00 FT. AFT, LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 85-87 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	44	53	62	71	80	89	98	107	116	125	134	143	5.02
1	152	161	170	180	189	198	207	217	226	244	280	316	5.67
2	352	388	424	460	496	532	568	604	640	676	712	748	6.33
3	784	820	856	894	932	969	1007	1045	1083	1121	1159	1208	6.94
4	1268	1328	1389	1449	1509	1570	1630	1691	1751	1811	1872	1932	7.57
5	1992	2053	2113	2173	2235	2296	2358	2419	2481	2542	2604	2665	8.18
6	2738	2817	2896	2974	3053	3132	3210	3289	3368	3446	3525	3604	8.80
7	3682	3761	3840	3919	3998	4078	4157	4237	4317	4397	4477	4557	9.41
8	4641	4734	4827	4920	5013	5107	5200	5293	5386	5480	5573	5666	10.03
9	5759	5853	5946	6039	6132	6226	6320	6414	6508	6601	6695	6789	10.63
10	6885	6989	7093	7197	7302	7406	7510	7615	7719	7823	7927	8032	11.24
11	8136	8240	8345	8449	8553	8657	8762	8866	8970	9075	9179	9283	11.84
12	9389	9501	9614	9726	9639	9952	10064	10177	10289	10402	10514	10627	12.44
13	10739	10852	10965	11077	11190	11302	11415	11527	11640	11752	11865	11978	13.03
14	12091	12210	12329	12448	12568	12687	12806	12925	13044	13163	13282	13401	13.63
15	13520	13639	13758	13877	13996	14115	14234	14354	14473	14592	14711	14830	14.21

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 17585.98 GALLONS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 17234.26 GALLONS VCG = 15.68 FT.ABV.B.L.
LOWEST POINT OF TANK 4.851 FT. ABV. B.L.
STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.
SHEET 1 OF 2
C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 64

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	42	51	60	69	78	86	95	104	113	122	130	139	5.03
1	148	157	166	175	184	193	203	212	233	269	304	340	5.69
2	375	411	446	482	517	553	588	624	659	695	730	766	6.35
3	801	836	872	909	946	983	1021	1058	1095	1132	1184	1244	6.97
4	1303	1363	1423	1483	1543	1603	1663	1723	1783	1843	1903	1963	7.60
5	2023	2083	2143	2202	2263	2324	2386	2447	2508	2569	2630	2704	8.21
6	2782	2861	2939	3017	3096	3174	3252	3331	3409	3487	3566	3644	8.83
7	3722	3801	3879	3958	4036	4116	4195	4275	4355	4434	4514	4598	9.44
8	4691	4784	4877	4970	5063	5156	5249	5342	5435	5528	5621	5714	10.05
9	5807	5900	5993	6086	6179	6272	6366	6459	6553	6646	6740	6836	10.66
10	6940	7044	7148	7252	7356	7461	7565	7669	7773	7877	7981	8085	11.27
11	8189	8293	8397	8501	8605	8709	8814	8918	9022	9126	9230	9336	11.87
12	9448	9561	9673	9786	9898	10010	10123	10235	10348	10460	10572	10685	12.47
13	10797	10910	11022	11134	11247	11359	11471	11584	11696	11809	11921	12035	13.06
14	12154	12273	12392	12511	12630	12749	12868	12987	13106	13225	13343	13462	13.65
15	13581	13700	13819	13938	14057	14176	14295	14414	14533	14652	14771	14889	14.23

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 17585.98 GALLONS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 17234.26 GALLONS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	15007	15125	15243	15361	15479	15597	15715	15833	15951	16069	16187	16305	14.82
17	16423	16541	16659	16777	16895	17013	17131	17249	17367	17485			15.37

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 17585.98 GALLONS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 17234.26 GALLONS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.14	0.17	0.20	0.22	0.25	0.28	0.31	0.34	0.37	0.40	0.42	0.45	5.03
1	0.48	0.51	0.54	0.57	0.60	0.63	0.66	0.69	0.76	0.88	0.99	1.11	5.69
2	1.22	1.34	1.45	1.57	1.68	1.80	1.92	2.03	2.15	2.26	2.38	2.49	6.35
3	2.61	2.72	2.84	2.96	3.08	3.20	3.32	3.45	3.57	3.69	3.86	4.05	6.97
4	4.25	4.44	4.64	4.83	5.03	5.22	5.42	5.61	5.81	6.00	6.20	6.39	7.60
5	6.59	6.78	6.98	7.17	7.37	7.57	7.77	7.97	8.17	8.37	8.57	8.81	8.21
6	9.06	9.32	9.57	9.83	10.08	10.34	10.59	10.85	11.10	11.36	11.61	11.87	8.83
7	12.12	12.38	12.63	12.89	13.15	13.41	13.66	13.92	14.18	14.44	14.70	14.98	9.44
8	15.28	15.58	15.88	16.19	16.49	16.79	17.10	17.40	17.70	18.00	18.31	18.61	10.05
9	18.91	19.22	19.52	19.82	20.12	20.43	20.73	21.04	21.34	21.65	21.95	22.27	10.66
10	22.60	22.94	23.28	23.62	23.96	24.30	24.64	24.98	25.32	25.66	25.99	26.33	11.27
11	26.67	27.01	27.35	27.69	28.03	28.37	28.71	29.05	29.38	29.72	30.06	30.41	11.87
12	30.77	31.14	31.51	31.87	32.24	32.60	32.97	33.34	33.70	34.07	34.44	34.80	12.47
13	35.17	35.53	35.90	36.27	36.63	37.00	37.36	37.73	38.10	38.46	38.83	39.20	13.06
14	39.59	39.97	40.36	40.75	41.14	41.52	41.91	42.30	42.69	43.07	43.46	43.85	13.65
15	44.24	44.62	45.01	45.40	45.79	46.17	46.56	46.95	47.34	47.72	48.11	48.50	14.23

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	48.88	49.27	49.65	50.03	50.42	50.80	51.19	51.57	51.96	52.34	52.72	53.11	14.82
17	53.49	53.88	54.26	54.65	55.03	55.41	55.80	56.18	56.57	56.95			15.37

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	1	2	2	2	2	2	3	3	3	3	3	5.02
1	4	4	4	4	5	5	5	5	6	6	6	7	5.66
2	8	9	10	10	11	12	13	14	15	16	17	17	6.30
3	18	19	20	21	22	23	24	25	25	26	27	28	6.91
4	29	31	32	34	35	37	38	39	41	42	44	45	7.55
5	47	48	50	51	53	54	55	57	58	60	61	63	8.16
6	64	66	68	70	72	74	75	77	79	81	83	85	8.78
7	87	89	90	92	94	96	98	100	102	104	106	108	9.39
8	110	111	114	116	118	120	123	125	127	129	132	134	10.00
9	136	138	140	143	145	147	149	152	154	156	158	161	10.61
10	163	165	168	170	173	175	177	180	182	185	187	190	11.21
11	192	195	197	200	202	205	207	210	212	215	217	220	11.82
12	222	225	227	230	233	236	238	241	244	246	249	252	12.42
13	254	257	260	262	265	268	270	273	276	278	281	284	13.01
14	286	289	292	295	298	301	303	306	309	312	315	318	13.60
15	320	323	326	329	332	335	337	340	343	346	349	352	14.18

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 418.66 BARRELS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 410.28 BARRELS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.759 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	354	357	360	363	366	369	372	375	378	381	384	387	14.77
17	390	393	396	399	402	405	407	410	413	416			15.35

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 418.66 BARRELS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 410.28 BARRELS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.759 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.15	0.18	0.21	0.24	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48	5.02
1	0.51	0.54	0.57	0.60	0.63	0.66	0.69	0.72	0.75	0.78	0.83	0.95	5.66
2	1.07	1.19	1.30	1.42	1.54	1.66	1.78	1.90	2.02	2.14	2.26	2.38	6.30
3	2.50	2.62	2.73	2.86	2.98	3.11	3.23	3.36	3.48	3.61	3.73	3.86	6.91
4	4.01	4.21	4.41	4.61	4.80	5.00	5.20	5.40	5.60	5.79	5.99	6.19	7.55
5	6.39	6.59	6.78	6.98	7.18	7.39	7.59	7.79	7.99	8.19	8.39	8.60	8.16
6	8.80	9.03	9.29	9.55	9.80	10.06	10.32	10.58	10.83	11.09	11.35	11.61	8.78
7	11.86	12.12	12.38	12.63	12.89	13.15	13.42	13.68	13.94	14.20	14.46	14.72	9.39
8	14.98	15.25	15.56	15.86	16.17	16.47	16.78	17.08	17.39	17.69	17.99	18.30	10.00
9	18.60	18.91	19.21	19.52	19.82	20.13	20.43	20.74	21.05	21.35	21.66	21.97	10.61
10	22.27	22.58	22.92	23.26	23.60	23.94	24.28	24.62	24.96	25.30	25.65	25.99	11.21
11	26.33	26.67	27.01	27.35	27.69	28.03	28.37	28.71	29.05	29.39	29.73	30.07	11.82
12	30.41	30.75	31.12	31.49	31.85	32.22	32.59	32.96	33.32	33.69	34.06	34.42	12.42
13	34.79	35.16	35.53	35.89	36.26	36.63	36.99	37.36	37.73	38.10	38.46	38.83	13.01
14	39.20	39.57	39.95	40.34	40.73	41.12	41.51	41.90	42.28	42.67	43.06	43.45	13.60
15	43.84	44.22	44.61	45.00	45.39	45.78	46.17	46.55	46.94	47.33	47.72	48.11	14.18

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.759 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

512

WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	48.50	48.88	49.29	49.69	50.10	50.50	50.90	51.31	51.71	52.11	52.52	52.92	14.77
17	53.33	53.73	54.13	54.54	54.94	55.34	55.75	56.15	56.56	56.96			15.35

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 7 INCHES CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.759 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.65

513

WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	1	1	2	2	2	2	3	3	3	3	3	5.02
1	4	4	4	4	4	5	5	5	5	6	7	8	5.67
2	8	9	10	11	12	13	14	14	15	16	17	18	6.33
3	19	20	20	21	22	23	24	25	26	27	28	29	6.94
4	30	32	33	34	36	37	39	40	42	43	45	46	7.57
5	47	49	50	52	53	55	56	58	59	61	62	63	8.18
6	65	67	69	71	73	75	76	78	80	82	84	86	8.80
7	88	90	91	93	95	97	99	101	103	105	107	108	9.41
8	110	113	115	117	119	122	124	126	128	130	133	135	10.03
9	137	139	142	144	146	148	150	153	155	157	159	162	10.63
10	164	166	169	171	174	176	179	181	184	186	189	191	11.24
11	194	196	199	201	204	206	209	211	214	216	219	221	11.84
12	224	226	229	232	234	237	240	242	245	248	250	253	12.44
13	256	258	261	264	266	269	272	274	277	280	282	285	13.03
14	288	291	294	296	299	302	305	308	311	313	316	319	13.63
15	322	325	328	330	333	336	339	342	345	347	350	353	14.21

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 418.66 BARRELS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 410.28 BARRELS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.851 FT. ABV. B.L.

STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	356	359	362	365	367	370	373	376	379	382	385	388	14.79
17	390	393	396	399	402	405	408	411	413	416			15.36

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 418.66 BARRELS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 410.28 BARRELS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.851 FT. ABV. B.L.

STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.14	0.17	0.20	0.23	0.26	0.29	0.32	0.35	0.38	0.41	0.44	0.46	5.02
1	0.49	0.52	0.55	0.58	0.62	0.65	0.68	0.71	0.74	0.79	0.91	1.03	5.67
2	1.15	1.26	1.38	1.50	1.61	1.73	1.85	1.97	2.08	2.20	2.32	2.44	6.33
3	2.55	2.67	2.79	2.91	3.03	3.16	3.28	3.40	3.53	3.65	3.77	3.93	6.94
4	4.13	4.33	4.52	4.72	4.92	5.11	5.31	5.51	5.70	5.90	6.10	6.29	7.57
5	6.49	6.69	6.88	7.08	7.28	7.48	7.68	7.88	8.08	8.28	8.48	8.68	8.18
6	8.92	9.18	9.43	9.69	9.94	10.20	10.46	10.71	10.97	11.23	11.48	11.74	8.80
7	11.99	12.25	12.51	12.76	13.02	13.28	13.54	13.80	14.06	14.32	14.58	14.84	9.41
8	15.11	15.42	15.72	16.03	16.33	16.63	16.94	17.24	17.54	17.85	18.15	18.46	10.03
9	18.76	19.06	19.37	19.67	19.97	20.28	20.58	20.89	21.20	21.50	21.81	22.11	10.63
10	22.42	22.76	23.10	23.44	23.78	24.12	24.46	24.80	25.14	25.48	25.82	26.16	11.24
11	26.50	26.84	27.18	27.52	27.86	28.20	28.54	28.88	29.22	29.56	29.90	30.24	11.84
12	30.58	30.95	31.31	31.68	32.05	32.41	32.78	33.15	33.51	33.88	34.25	34.61	12.44
13	34.98	35.35	35.71	36.08	36.45	36.81	37.18	37.55	37.91	38.28	38.65	39.01	13.03
14	39.38	39.77	40.16	40.55	40.93	41.32	41.71	42.10	42.49	42.87	43.26	43.65	13.63
15	44.04	44.42	44.81	45.20	45.59	45.98	46.36	46.75	47.14	47.53	47.91	48.30	14.21

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.851 FT. ABV. B.L.

STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	48.69	49.08	49.48	49.87	50.27	50.66	51.05	51.45	51.84	52.23	52.63	53.02	14.79
17	53.41	53.81	54.20	54.59	54.99	55.38	55.77	56.17	56.56	56.96			15.36

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 7/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.851 FT. ABV. B.L.

STRIKING PLATE 0.359 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	48.88	49.27	49.65	50.03	50.42	50.80	51.19	51.57	51.96	52.34	52.72	53.11	14.82
17	53.49	53.88	54.26	54.65	55.03	55.41	55.80	56.18	56.57	56.95			15.37

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.14	0.17	0.20	0.22	0.25	0.28	0.31	0.34	0.37	0.40	0.42	0.45	5.03
1	0.48	0.51	0.54	0.57	0.60	0.63	0.66	0.69	0.76	0.88	0.99	1.11	5.69
2	1.22	1.34	1.45	1.57	1.68	1.80	1.92	2.03	2.15	2.26	2.38	2.49	6.35
3	2.61	2.72	2.84	2.96	3.08	3.20	3.32	3.45	3.57	3.69	3.86	4.05	6.97
4	4.25	4.44	4.64	4.83	5.03	5.22	5.42	5.61	5.81	6.00	6.20	6.39	7.60
5	6.59	6.78	6.98	7.17	7.37	7.57	7.77	7.97	8.17	8.37	8.57	8.81	8.21
6	9.06	9.32	9.57	9.83	10.08	10.34	10.59	10.85	11.10	11.36	11.61	11.87	8.83
7	12.12	12.38	12.63	12.89	13.15	13.41	13.66	13.92	14.18	14.44	14.70	14.98	9.44
8	15.28	15.58	15.88	16.19	16.49	16.79	17.10	17.40	17.70	18.00	18.31	18.61	10.05
9	18.91	19.22	19.52	19.82	20.12	20.43	20.73	21.04	21.34	21.65	21.95	22.27	10.66
10	22.60	22.94	23.28	23.62	23.96	24.30	24.64	24.98	25.32	25.66	25.99	26.33	11.27
11	26.67	27.01	27.35	27.69	28.03	28.37	28.71	29.05	29.38	29.72	30.06	30.41	11.87
12	30.77	31.14	31.51	31.87	32.24	32.60	32.97	33.34	33.70	34.07	34.44	34.80	12.47
13	35.17	35.53	35.90	36.27	36.63	37.00	37.36	37.73	38.10	38.46	38.83	39.20	13.06
14	39.59	39.97	40.36	40.75	41.14	41.52	41.91	42.30	42.69	43.07	43.46	43.85	13.65
15	44.24	44.62	45.01	45.40	45.79	46.17	46.56	46.95	47.34	47.72	48.11	48.50	14.23

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 57.28 D.O.LTON VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 56.13 D.O.LTON VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

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WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
16	357	360	363	366	369	371	374	377	380	383	385	388	14.82
17	391	394	397	399	402	405	408	411	413	416			15.37

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 418.66 BARRELS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 410.28 BARRELS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 2 OF 2

C7-1000

517

WATERMAN LASH

SOUNDING TABLE

DIESEL OIL TANK S

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN BARRELS CORRESPONDING TO EACH INCH OF SOUNDING FR 85-87 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1	1	1	2	2	2	2	2	3	3	3	3	5.03
1	4	4	4	4	4	5	5	5	6	6	7	8	5.69
2	9	10	11	11	12	13	14	15	16	17	17	18	6.35
3	19	20	21	22	23	23	24	25	26	27	28	30	6.97
4	31	32	34	35	37	38	40	41	42	44	45	47	7.60
5	48	50	51	52	54	55	57	58	60	61	63	64	8.21
6	66	68	70	72	74	76	77	79	81	83	85	87	8.83
7	89	90	92	94	96	98	100	102	104	106	107	109	9.44
8	112	114	116	118	121	123	125	127	129	132	134	136	10.05
9	138	140	143	145	147	149	152	154	156	158	160	163	10.66
10	165	168	170	173	175	178	180	183	185	188	190	192	11.27
11	195	197	200	202	205	207	210	212	215	217	220	222	11.87
12	225	228	230	233	236	238	241	244	246	249	252	254	12.47
13	257	260	262	265	268	270	273	276	278	281	284	287	13.06
14	289	292	295	298	301	303	306	309	312	315	318	320	13.65
15	323	326	329	332	335	337	340	343	346	349	352	354	14.23

TANK 100 PERCENT FULL SOUNDING = 17 FT. 9 6/8 IN CAP. = 418.66 BARRELS VCG = 15.82 FT.ABV.B.L.
TANK 98 PERCENT FULL SOUNDING = 17 FT. 6 6/8 IN CAP. = 410.28 BARRELS VCG = 15.68 FT.ABV.B.L.

LOWEST POINT OF TANK 4.943 FT. ABV. B.L.

STRIKING PLATE 0.356 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 20.266 FT.

SHEET 1 OF 2

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 66

WATERMAN LASH — SOUNDING TABLE — 521

400 GALLON EMER DG DAY P — TRIM 0.0 FT. AFT — LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	30	36	42	48	54	60	66	72	79	87	94	101	70.74
1	109	116	123	131	138	145	153	160	167	175	182	189	71.28
2	197	204	211	219	226	233	241	248	255	263	270	277	71.80
3	285	292	299	307	314	321	329	336	343	351	358	365	72.30
4	373	380	387										72.81

TANK 100 PERCENT FULL SOUNDING = 4 FT. 2 7/8 IN CAP. = 393.66 GALLONS VCG = 72.93 FT.ABV.B.L.

LOWEST POINT OF TANK 70.500 FT. ABV. B.L. STRIKING PLATE 0.430 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 5.070 FT.

C7-1000 SHEET 1 OF 1

WATERMAN LASH — SOUNDING TABLE — 521

400 GALLON EMER DG DAY P — TRIM 0.0 FT. AFT — LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	30	36	42	48	54	60	66	72	79	87	94	101	10.49
1	109	116	123	131	138	145	153	160	167	175	182	189	11.03
2	197	204	211	219	226	233	241	248	255	263	270	277	11.55
3	285	292	299	307	314	321	329	336	343	351	358	365	12.05
4	373	380	387										12.56

TANK 100 PERCENT FULL SOUNDING = 4 FT. 2 7/8 IN CAP. = 393.66 GALLONS VCG = 12.68 FT.ABV.B.L.

LOWEST POINT OF TANK 10.250 FT. ABV. B.L. STRIKING PLATE 0.430 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 4.320 FT.

C7-1000 SHEET 1 OF 1

WATERMAN LASH — SOUNDING TABLE — 522

400 GALLON EMER DG DAY P — TRIM 0.0 FT. AFT — LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.10	0.12	0.14	0.16	0.18	0.20	0.21	0.23	0.26	0.28	0.31	0.33	10.49
1	0.35	0.38	0.40	0.43	0.45	0.47	0.50	0.52	0.54	0.57	0.59	0.62	11.03
2	0.64	0.66	0.69	0.71	0.74	0.76	0.78	0.81	0.83	0.86	0.88	0.90	11.55
3	0.93	0.95	0.97	1.00	1.02	1.05	1.07	1.09	1.12	1.14	1.17	1.19	12.05
4	1.21	1.24	1.26										12.56

TANK 100 PERCENT FULL SOUNDING = 4 FT. 2 7/8 IN CAP. = 1.28 D.O.LTON VCG = 12.68 FT.ABV.B.L.

LOWEST POINT OF TANK 10.250 FT. ABV. B.L. STRIKING PLATE 0.430 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 4.320 FT.

C7-1000 SHEET 1 OF 1

WATERMAN LASH — SOUNDING TABLE — 522

400 GALLON EMER DG DAY P — TRIM 0.0 FT. AFT — LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.10	0.12	0.14	0.16	0.18	0.20	0.21	0.23	0.26	0.28	0.31	0.33	70.74
1	0.35	0.38	0.40	0.43	0.45	0.47	0.50	0.52	0.54	0.57	0.59	0.62	71.28
2	0.64	0.66	0.69	0.71	0.74	0.76	0.78	0.81	0.83	0.86	0.88	0.90	71.80
3	0.93	0.95	0.97	1.00	1.02	1.05	1.07	1.09	1.12	1.14	1.17	1.19	72.30
4	1.21	1.24	1.26										72.81

TANK 100 PERCENT FULL SOUNDING = 4 FT. 2 7/8 IN CAP. = 1.28 D.O.LTON VCG = 72.93 FT.ABV.B.L.

LOWEST POINT OF TANK 70.500 FT. ABV. B.L. STRIKING PLATE 0.430 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 5.070 FT.

C7-1000 SHEET 1 OF 1

WATERMAN LASH — SOUNDING TABLE — 524

400 GALLON EMER DG DAY P — TRIM 5.00 FT. AFT — LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.09	0.11	0.13	0.15	0.16	0.18	0.20	0.22	0.24	0.27	0.29	0.31	10.47
1	0.34	0.36	0.39	0.41	0.43	0.46	0.48	0.51	0.53	0.55	0.58	0.60	11.01
2	0.63	0.65	0.67	0.70	0.72	0.74	0.77	0.79	0.82	0.84	0.86	0.89	11.52
3	0.91	0.94	0.96	0.98	1.01	1.03	1.05	1.08	1.10	1.13	1.15	1.17	12.03
4	1.20	1.22	1.24	1.26									12.52

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1.28 D.O.LTON VCG = 12.68 FT.ABV.B.L.

LOWEST POINT OF TANK 10.250 FT. ABV. B.L. STRIKING PLATE 0.396 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 4.320 FT.

C7-1000 SHEET 1 OF 1

WATERMAN LASH — SOUNDING TABLE — 524

400 GALLON EMER DG DAY P — TRIM 5.00 FT. AFT — LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.09	0.11	0.13	0.15	0.16	0.18	0.20	0.22	0.24	0.27	0.29	0.31	70.72
1	0.34	0.36	0.39	0.41	0.43	0.46	0.48	0.51	0.53	0.55	0.58	0.60	71.26
2	0.63	0.65	0.67	0.70	0.72	0.74	0.77	0.79	0.82	0.84	0.86	0.89	71.77
3	0.91	0.94	0.96	0.98	1.01	1.03	1.05	1.08	1.10	1.13	1.15	1.17	72.28
4	1.20	1.22	1.24	1.26									72.77

TANK 100 PERCENT FULL SOUNDING = 4 FT. 3 5/8 IN CAP. = 1.28 D.O.LTON VCG = 72.93 FT.ABV.B.L.

LOWEST POINT OF TANK 70.500 FT. ABV. B.L. STRIKING PLATE 0.396 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 5.070 FT.

C7-1000 SHEET 1 OF 1

WATERMAN LASH — SOUNDING TABLE — 523

400 GALLON EMER DG DAY P — TRIM 5.00 FT. AFT — LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	27	33	39	45	50	56	62	68	75	82	89	97	10.47
1	104	111	119	126	133	141	148	155	163	170	177	185	11.01
2	192	199	207	214	221	229	236	243	251	258	265	273	11.52
3	280	287	295	302	309	317	324	331	338	346	353	360	12.03
4	367	374	381	388									12.52

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 393.66 GALLONS VCG = 12.68 FT.ABV.B.L.

LOWEST POINT OF TANK 10.250 FT. ABV. B.L. STRIKING PLATE 0.396 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 4.320 FT.

C7-1000 SHEET 1 OF 1

WATERMAN LASH — SOUNDING TABLE — 523

400 GALLON EMER DG DAY P — TRIM 5.00 FT. AFT — LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING — FR 87-88 P

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	27	33	39	45	50	56	62	68	75	82	89	97	70.72
1	104	111	119	126	133	141	148	155	163	170	177	185	71.26
2	192	199	207	214	221	229	236	243	251	258	265	273	71.77
3	280	287	295	302	309	317	324	331	338	346	353	360	72.28
4	367	374	381	388									72.77

TANK 100 PERCENT FULL SOUNDING = 4 FT. 3 5/8 IN CAP. = 393.66 GALLONS VCG = 72.93 FT.ABV.B.L.

LOWEST POINT OF TANK 70.500 FT. ABV. B.L. STRIKING PLATE 0.396 FT. ABV.LOWEST PT.TANK TOTAL LENGTH 5.070 FT.

C7-1000 SHEET 1 OF 1

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 67

525

WATERMAN LASH

SOUNDING TABLE

400 GALLON EMER DG DAY P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 87-88 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	24	30	36	41	47	52	58	64	70	77	85	92	70.70
1	99	107	114	121	129	136	143	151	158	165	173	180	71.23
2	187	195	202	209	217	224	231	239	246	253	261	268	71.74
3	275	283	290	297	305	312	319	327	334	341	348	355	72.25
4	362	369	375	382	389								72.74

TANK 100 PERCENT FULL SOUNDING = 4 FT. 4 4/8 IN CAP. = 393.66 GALLONS VCG = 72.93 FT.ABV.B.L.

LOWEST POINT OF TANK 70.500 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 5.070 FT.

SHEET 1 OF 1

C7-1000

530

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
DISTILLED WATER TANK P/S
CAPACITY IN F.W. LTONS

TRIM: 5.00' AFT
LIST: 0.0 DGR

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	37.75	9.70	13	49.75	152.89
2	38.75	21.15	14	50.75	163.34
3	39.75	33.14	15	51.75	172.11
4	40.75	45.22	16	52.75	180.58
5	41.75	57.32	17	53.75	189.05
6	42.75	69.44	18	54.75	197.51
7	43.75	81.56	19	55.75	205.97
8	44.75	93.68	20	56.75	214.43
9	45.75	105.80	21	57.75	222.89
10	46.75	117.93	22	58.75	231.35
11	47.75	130.05	23	59.75	238.79
12	48.75	142.18			

TANK 100% FULL CAPACITY = 242.94 F.W. LTONS
LOWEST POINT OF TANK = 37.00 FT ABOVE BASELINE

V.C.G. = 47.58 FT. ABOVE BASELINE

525

WATERMAN LASH

SOUNDING TABLE

400 GALLON EMER DG DAY P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 87-88 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	24	30	36	41	47	52	58	64	70	77	85	92	10.45
1	99	107	114	121	129	136	143	151	158	165	173	180	10.98
2	187	195	202	209	217	224	231	239	246	253	261	268	11.50
3	275	283	290	297	305	312	319	327	334	341	348	355	12.00
4	362	369	375	382									12.49

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 393.66 GALLONS VCG = 12.68 FT.ABV.B.L.

LOWEST POINT OF TANK 10.250 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 4.320 FT.

SHEET 1 OF 1

C7-1000

529

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
DISTILLED WATER TANK P/S
CAPACITY IN GALLONS

TRIM: 5.000' AFT
LIST: 0.0 DGR

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	37.75	2613	13	49.75	41175
2	38.75	5697	14	50.75	43990
3	39.75	8924	15	51.75	46352
4	40.75	12178	16	52.75	48633
5	41.75	15439	17	53.75	50913
6	42.75	18700	18	54.75	53193
7	43.75	21964	19	55.75	55471
8	44.75	25229	20	56.75	57750
9	45.75	28494	21	57.75	60028
10	46.75	31759	22	58.75	62305
11	47.75	35025	23	59.75	64311
12	48.75	38291			

TANK 100% FULL CAPACITY = 65428.82 GALLONS
LOWEST POINT OF TANK = 37.00 FT ABOVE BASELINE

V.C.G. = 47.58 FT. ABOVE BASELINE

526

WATERMAN LASH

SOUNDING TABLE

400 GALLON EMER DG DAY P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 87-88 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.08	0.10	0.12	0.13	0.15	0.17	0.19	0.21	0.23	0.25	0.28	0.30	70.70
1	0.32	0.35	0.37	0.39	0.42	0.44	0.47	0.49	0.51	0.54	0.56	0.59	71.23
2	0.61	0.63	0.66	0.68	0.71	0.73	0.75	0.78	0.80	0.82	0.85	0.87	71.74
3	0.90	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.09	1.11	1.13	1.15	72.25
4	1.18	1.20	1.22	1.25	1.27								72.74

TANK 100 PERCENT FULL SOUNDING = 4 FT. 4 4/8 IN CAP. = 1.26 D.O.LTON VCG = 72.93 FT.ABV.B.L.

LOWEST POINT OF TANK 70.500 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 5.070 FT.

SHEET 1 OF 1

C7-1000

528

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
DISTILLED WATER TANK P/S
CAPACITY IN F.W. LTONS

TRIM: 0.0' FWD
LIST: 0.0 DGR

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	37.75	9.02	13	49.75	152.90
2	38.75	21.04	14	50.75	163.20
3	39.75	33.11	15	51.75	172.13
4	40.75	45.19	16	52.75	180.60
5	41.75	57.30	17	53.75	189.06
6	42.75	69.41	18	54.75	197.53
7	43.75	81.53	19	55.75	205.99
8	44.75	93.65	20	56.75	214.45
9	45.75	105.77	21	57.75	222.91
10	46.75	117.90	22	58.75	231.36
11	47.75	130.02	23	59.75	239.16
12	48.75	142.15			

TANK 100% FULL CAPACITY = 242.94 F.W LTONS
LOWEST POINT OF TANK = 37.00 FT ABOVE BASELINE

V.C.G. = 47.58 FT. ABOVE BASELINE

526

WATERMAN LASH

SOUNDING TABLE

400 GALLON EMER DG DAY P

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN D.O.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 87-88 P

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.08	0.10	0.12	0.13	0.15	0.17	0.19	0.21	0.23	0.25	0.28	0.30	10.45
1	0.32	0.35	0.37	0.39	0.42	0.44	0.47	0.49	0.51	0.54	0.56	0.59	10.98
2	0.61	0.63	0.66	0.68	0.71	0.73	0.75	0.78	0.80	0.82	0.85	0.87	11.50
3	0.90	0.92	0.94	0.97	0.99	1.02	1.04	1.06	1.09	1.11	1.13	1.16	12.00
4	1.18	1.20	1.22	1.25									12.49

TANK 100 PERCENT FULL SOUNDING = 0 FT. 0 INCHES CAP. = 1.28 D.O.LTON VCG = 12.68 FT.ABV.B.L.

LOWEST POINT OF TANK 10.250 FT. ABV. B.L.

STRIKING PLATE 0.361 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 4.320 FT.

SHEET 1 OF 1

C7-1000

527

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
DISTILLED WATER TANK P/S
CAPACITY IN GALLONS

TRIM: 0.0' FWD
LIST: 0.0 DGR.

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	37.75	2429	13	49.75	41179
2	38.75	5667	14	50.75	43953
3	39.75	8917	15	51.75	46352
4	40.75	12171	16	52.75	48638
5	41.75	15431	17	53.75	50918
6	42.75	18692	18	54.75	53197
7	43.75	21956	19	55.75	55476
8	44.75	25221	20	56.75	57755
9	45.75	28486	21	57.75	60032
10	46.75	31751	22	58.75	62310
11	47.75	35017	23	59.75	64409
12	48.75	38283			

TANK 100% FULL CAPACITY = 65428.82 GALLONS
LOWEST POINT OF TANK = 37.00 FT ABOVE BASELINE

V.C.G. = 47.58 FT. ABOVE BASELINE

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 68

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
DISTILLED WATER TANK P/S
CAPAICTY IN GALLONS

TRIM: 10.00' AFT
LIST: 0.0 DRG.

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	37.75	2767	13	49.75	41178
2	38.75	5696	14	50.75	44034
3	39.75	8932	15	51.75	46347
4	40.75	12185	16	52.75	48628
5	41.75	15446	17	53.75	50908
6	42.75	18708	18	54.75	53188
7	43.75	21972	19	55.75	55467
8	44.75	25237	20	56.75	57745
9	45.75	28502	21	57.75	60023
10	46.75	31768	22	58.75	62300
11	47.75	35033	23	59.75	64189
12	48.75	38299			

TANK 100% FULL CAPACITY = 65428.82 GALLONS
LOWEST POINT OF TANK = 37.00 FT ABOVE BASELINE
V.C.G. = 47.58 FT. ABOVE BASELINE

532

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
DISTILLED WATER TANK P/S
CAPACITY IN F.W. LTONS

TRIM: 10.00' FWD
LIST: 0.0 DGR.

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	37.75	10.27	13	49.75	152.90
2	38.75	21.15	14	50.75	163.50
3	39.75	33.16	15	51.75	172.09
4	40.75	45.25	16	52.75	180.56
5	41.75	57.35	17	53.75	189.03
6	42.75	69.46	18	54.75	197.49
7	43.75	81.58	19	55.75	205.95
8	44.75	93.71	20	56.75	214.41
9	45.75	105.83	21	57.75	222.87
10	46.75	117.96	22	58.75	231.33
11	47.75	130.08	23	59.75	238.34
12	48.75	142.21			

TANK 100% FULL CAPACITY = 242.94 F.W. LTONS
LOWEST POINT OF TANK = 37.00 FT ABOVE BASELINE
V.C.G. = 47.58 FT. ABOVE BASELINE

533

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
POTABLE WATER TANK P/S
CAPACITY IN GALLONS

TRIM: 0.0' AFT
LIST: 0.0 DGR.

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	18.75	1311	9	26.75	18822
2	19.75	3058	10	27.75	21470
3	20.75	4984	11	28.75	24197
4	21.75	6969	12	29.75	26950
5	22.75	9133	13	30,75	29781
6	23.75	11357	14	31,75	32638
7	24.75	13759	15	32,75	35572
8	25.75	16221	16	33,75	38532

TANK 100% FULL CAPACITY = 40785.01 GALLONS
LOWEST POINT OF TANK = 18.00 FT. ABOVE BASELINE
V.C.G. = 27.03 FT. ABOVE BASELINE

534

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
POTABLE WATER TANK P/S
CAPACITY IN F.W. LTONS

TRIM: 0.0' AFT
LIST: 0.0 DGR

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	18.75	4.87	9	26.75	69.89
2	19.75	11.35	10	27.75	79.72
3	20.75	18.51	11	28.75	89.85
4	21.75	25.88	12	29.75	100.07
5	22.75	33.91	13	30.75	110.58
6	23.75	42.17	14	31.75	121.19
7	24.75	51.09	15	32.75	132.08
8	25.75	60.23	16	33.75	143.07

TANK 100% FULL CAPACITY = 151.44 F.W. L. TONS
LOWEST POINT OF TANK = 18.00 FT. ABOVE BASELINE
V.C.G. = 27.03 FT. ABOVE BASELINE

538

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
POTABLE WATER TANK P/S
CAPACITY IN F.W. L. TONS

TRIM: 10.00' AFT
LIST: 0.0 DGR

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	18.75	5.58	9	26.75	70.01
2	19.75	11.26	10	27.75	79.80
3	20.75	18.52	11	28.75	89.97
4	21.75	25.81	12	29.75	100.16
5	22.75	33.96	13	30.75	110.73
6	23.75	42.14	14	31.75	121.30
7	24.75	51.18	15	32.75	132.25
8	25.75	60.23	16	33.75	143.20

TANK 100% FULL CAPACITY = 151.44 F.W. L. TONS
LOWEST POINT OF TANK = 18.00 FT. ABOVE BASELINE
V.C.G. = 27.03 FT. ABOVE BASELINE

537

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
POTABLE WATER TANK P/S
CAPACITY IN GALLONS

TRIM: 10.00' AFT
LIST: 0.0 DGR

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	18.75	1502	9	26.75	18854
2	19.75	3032	10	27.75	21490
3	20.75	4987	11	28.75	24232
4	21.75	6950	12	29.75	26975
5	22.75	9147	13	30.75	29820
6	23.75	11348	14	31.75	32667
7	24.75	13783	15	32.75	35616
8	25.75	16222	16	33.75	38567

TANK 100% FULL CAPACITY = 40785.01 GALLONS
LOWEST POINT OF TANK = 18.00 FT. ABOVE BASELINE
V.C.G. = 27.03 FT. ABOVE BASELINE

536

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
POTABLE WATER TANK P/S
CAPACITY IN F.W. LTON

TRIM: 5.00' AFT
LIST: 0,0 DGR.

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	18.75	5.27	9	26.75	69.95
2	19.75	11.35	10	27.75	79.76
3	20.75	18.51	11	28.75	89.91
4	21.75	25.84	12	29.75	100.12
5	22.75	33.94	13	30.75	110.65
6	23.75	42.15	14	31.75	121.24
7	24.75	51.13	15	32.75	132.17
8	25.75	60.23	16	33.75	143.14

TANK 100% FULL CAPACITY = 151.44 F.W. L. TONS
LOWEST POINT OF TANK = 18.00 FT. ABOVE BASELINE
V.C.G. = 27.03 FT. ABOVE BASELINE

535

ASI JOB NO. C7-1000
WATERMAN LASH

SOUNDING TABLE
POTABLE WATER TANK P/S
CAPACITY IN GALLONS

TRIM: 5.00' AFT
LIST: 0.0 DGR.

PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY	PETCOCK NUMBER	HEIGHT ABOVE BASELINE	CAPACITY
1	18.75	1419	9	26.75	18838
2	19.75	3057	10	27.75	21481
3	20.75	4986	11	28.75	24215
4	21.75	6960	12	29.75	26963
5	22,75	9141	13	30.75	29801
6	23,75	11353	14	31,75	32653
7	24,75	13771	15	32,75	35594
8	25,75	16222	16	33,75	38550

TANK 100% FULL CAPACITY = 40785.01 GALLONS
LOWEST POINT OF TANK = 18.00 FT. ABOVE BASELINE
V.C.G. = 27.03 FT. ABOVE BASELINE

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO.29-01-04
FRAME NO.69

539

WATERMAN LASH

SOUNDING TABLE

FORWARD FLUME TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	347	1794	3241	4688	6135	7582	9030	10477	11924	13371	14818	16265	26.01
1	17712	19159	20606	22053	23500	24947	26394	27841	29288	30736	32183	33630	26.51
2	35084	36562	38041	39519	40997	42475	43953	45431	46910	48388	49866	51344	27.01
3	52822	54301	55779	57257	58735	60213	61691	63170	64648	66126	67604	69082	27.52
4	70568	72077	73586	75096	76605	78114	79623	81132	82641	84151	85660	87169	28.02
5	88678	90187	91696	93206	94715	96224	97733	99242	100752	102261	103770	105279	28.53
6	106796	108336	109876	111417	112957	114497	116038	117578	119119	120659	122199	123740	29.04
7	125280	126820	128361	129901	131441	132982	134522	136063	137603	139143	140684	142224	29.55
8	143772	145344	146916	148488	150059	151631	153203	154775	156347	157919	159491	161062	30.07
9	162634	164206	165778	167350	168922	170494	172066	173638	175209	176781	178353	179925	30.58

TANK 100 PERCENT FULL SOUNDING = 9 FT. 11 6/8 IN CAP. = 181120.00 GALLONS VCG = 31.09 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 38.980 FT.

SHEET 1 OF 1

C7-1000

540

WATERMAN LASH

SOUNDING TABLE

FORWARD FLUME TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.33	6.85	12.38	17.91	23.43	28.96	34.49	40.01	45.54	51.07	56.59	62.12	26.01
1	67.65	73.17	78.70	84.23	89.75	95.28	100.81	106.33	111.86	117.39	122.91	128.44	26.51
2	133.99	139.64	145.28	150.93	156.58	162.22	167.87	173.51	179.16	184.80	190.45	196.09	27.01
3	201.74	207.38	213.03	218.68	224.32	229.97	235.61	241.26	246.90	252.55	258.19	263.84	27.52
4	269.51	275.28	281.04	286.80	292.57	298.33	304.10	309.86	315.62	321.39	327.15	332.92	28.02
5	338.68	344.44	350.21	355.97	361.73	367.50	373.26	379.03	384.79	390.55	396.32	402.08	28.53
6	407.87	413.76	419.64	425.52	431.41	437.29	443.17	449.05	454.94	460.82	466.70	472.59	29.04
7	478.47	484.35	490.23	496.12	502.00	507.88	513.77	519.65	525.53	531.42	537.30	543.18	29.55
8	549.09	555.10	561.10	567.10	573.11	579.11	585.11	591.12	597.12	603.12	609.13	615.13	30.07
9	621.13	627.14	633.14	639.14	645.15	651.15	657.15	663.16	669.16	675.16	681.17	687.17	30.58

TANK 100 PERCENT FULL SOUNDING = 9 FT. 11 6/8 IN CAP. = 691.73 S.W.LTON VCG = 31.09 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 38.980 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FORWARD FLUME TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	996	2363	3730	5097	6464	7831	9198	10565	11932	13299	14666	16032	26.03
1	17399	18766	20133	21500	22867	24234	25601	26968	28335	29702	31069	32435	26.50
2	33882	35358	36835	38311	39787	41264	42740	44216	45693	47169	48645	50121	26.98
3	51598	53074	54550	56027	57503	58979	60456	61932	63408	64885	66361	67837	27.49
4	69336	70844	72351	73858	75365	76873	78380	79887	81395	82902	84409	85917	27.99
5	87424	88931	90439	91946	93453	94960	96468	97975	99482	100990	102497	104004	28.50
6	105535	107073	108611	110150	111688	113227	114765	116304	117842	119381	120919	122457	29.01
7	123996	125534	127073	128611	130150	131688	133227	134765	136303	137842	139380	140919	29.52
8	142420	143906	145393	146880	148367	149853	151340	152827	154314	155800	157287	158774	30.03
9	160261	161747	163234	164721	166208	167694	169181	170668	172155	173641	175128	176615	30.52
10	178102	179588											31.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 INCHES CAP. = 181120.00 GALLONS VCG = 31.09 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.061 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 38.980 FT.

SHEET 1 OF 1

C7-1000

542

WATERMAN LASH

SOUNDING TABLE

FORWARD FLUME TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	3.81	9.03	14.25	19.47	24.69	29.91	35.13	40.35	45.57	50.79	56.01	61.23	26.03
1	66.45	71.67	76.89	82.11	87.33	92.55	97.78	103.00	108.22	113.44	118.66	123.88	26.50
2	129.40	135.04	140.68	146.32	151.96	157.59	163.23	168.87	174.51	180.15	185.79	191.42	26.98
3	197.06	202.70	208.34	213.98	219.62	225.25	230.89	236.53	242.17	247.81	253.45	259.08	27.49
4	264.81	270.57	276.32	282.08	287.84	293.59	299.35	305.11	310.86	316.62	322.38	328.13	27.99
5	333.89	339.65	345.40	351.16	356.92	362.67	368.43	374.19	379.94	385.70	391.46	397.21	28.50
6	403.06	408.93	414.81	420.68	426.56	432.43	438.31	444.19	450.06	455.94	461.81	467.69	29.01
7	473.57	479.44	485.32	491.19	497.07	502.94	508.82	514.69	520.57	526.45	532.32	538.20	29.52
8	543.93	549.61	555.28	560.96	566.64	572.32	578.00	583.68	589.35	595.03	600.71	606.39	30.03
9	612.07	617.75	623.42	629.10	634.78	640.46	646.14	651.81	657.49	663.17	668.85	674.53	30.52
10	680.21	685.88											31.00

TANK 100 PERCENT FULL SOUNDING = 10 FT. 2 INCHES CAP. = 691.73 S.W.LTON VCG = 31.09 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.061 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 38.980 FT.

SHEET 1 OF 1

C7-1000

543

WATERMAN LASH

SOUNDING TABLE

FORWARD FLUME TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1567	2854	4141	5428	6715	8002	9289	10576	11863	13150	14437	15723	26.05
1	17010	18297	19584	20871	22158	23445	24732	26019	27306	28593	29880	31207	26.50
2	32682	34156	35631	37105	38580	40054	41529	43003	44477	45952	47426	48901	26.95
3	50375	51850	53324	54799	56273	57747	59222	60696	62171	63645	65120	66601	27.45
4	68107	69612	71117	72623	74128	75634	77139	78645	80150	81656	83161	84666	27.96
5	86172	87677	89183	90688	92194	93699	95205	96710	98215	99721	101226	102738	28.46
6	104275	105812	107348	108885	110421	111958	113494	115031	116567	118104	119641	121177	28.97
7	122714	124250	125787	127323	128860	130396	131933	133470	135006	136543	138079	139590	29.48
8	141007	142425	143842	145260	146677	148094	149512	150929	152346	153764	155181	156599	29.99
9	158016	159433	160851	162268	163686	165103	166520	167938	169355	170773	172190	173607	30.46
10	175025	176442	177859	179277	180694								30.92

TANK 100 PERCENT FULL SOUNDING = 10 FT. 4 2/8 IN CAP. = 181120.00 GALLONS VCG = 31.09 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.102 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 38.980 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

FORWARD FLUME TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 52-55 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	5.99	10.90	15.82	20.73	25.65	30.56	35.48	40.39	45.31	50.22	55.14	60.05	26.05
1	64.97	69.88	74.80	79.71	84.63	89.54	94.46	99.37	104.29	109.20	114.12	119.19	26.50
2	124.82	130.45	136.08	141.71	147.34	152.97	158.61	164.24	169.87	175.50	181.13	186.76	26.95
3	192.39	198.02	203.66	209.29	214.92	220.55	226.18	231.81	237.44	243.07	248.71	254.36	27.45
4	260.11	265.86	271.61	277.36	283.11	288.86	294.61	300.36	306.11	311.86	317.61	323.36	27.96
5	329.11	334.86	340.61	346.36	352.11	357.85	363.60	369.35	375.10	380.85	386.60	392.38	28.46
6	398.25	404.12	409.98	415.85	421.72	427.59	433.46	439.33	445.19	451.06	456.93	462.80	28.97
7	468.67	474.54	480.40	486.27	492.14	498.01	503.88	509.75	515.61	521.48	527.35	533.12	29.48
8	538.53	543.95	549.36	554.77	560.19	565.60	571.01	576.43	581.84	587.25	592.67	598.08	29.99
9	603.49	608.91	614.32	619.73	625.15	630.56	635.97	641.39	646.80	652.21	657.63	663.04	30.46
10	668.45	673.87	679.28	684.69	690.11								30.92

TANK 100 PERCENT FULL SOUNDING = 10 FT. 4 2/8 IN CAP. = 691.73 S.W.LTON VCG = 31.09 FT.ABV.B.L.

LOWEST POINT OF TANK 26.000 FT. ABV. B.L.

STRIKING PLATE 0.102 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 38.980 FT.

SHEET 1 OF 1

C7-1000

545

WATERMAN LASH

SOUNDING TABLE

AFT FLUME TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 55-58 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	328	1696	3064	4431	5799	7167	8535	9902	11270	12638	14006	15373	7.51
1	16741	18109	19476	20844	22212	23580	24947	26315	27683	29051	30418	31786	8.02
2	33172	34616	36059	37503	38947	40390	41834	43278	44721	46165	47608	49052	8.52
3	50496	51939	53383	54827	56270	57714	59158	60601	62045	63489	64932	66376	9.03
4	67834	69339	70844	72350	73855	75360	76865	78370	79875	81380	82885	84390	9.55
5	85895	87400	88905	90410	91915	93420	94925	96430	97935	99440	100945	102450	10.06
6	103967	105523	107079	108634	110190	111746	113302	114857	116413	117969	119524	121080	10.58
7	122636	124192	125747	127303	128859	130415	131970	133526	135082	136637	138193	139749	11.10
8	141315	142913	144512	146110	147708	149307	150905	152504	154102	155700	157299	158897	11.62
9	160495	162094	163692	165291	166889	168488	170086	171684	173283	174881	176480	178078	12.15
10	179685	181320	182955	184590	186225	187860	189495	191131	192766	194400	196036	197671	12.67
11	199306	200941	202576	204211	205846	207481	209116	210751	212386	214021	215656	217291	13.20
12	218934	220601	222268	223935	225602	227269	228936	230603	232270	233937	235605	237272	13.72
13	238939	240606	242273	243940	245607	247274	248941	250608	252275	253942	255609	257276	14.25

TANK 100 PERCENT FULL SOUNDING = 13 FT. 11 6/8 IN CAP. = 258543.56 GALLONS VCG = 14.76 FT.ABV.B.L.

LOWEST POINT OF TANK 7.500 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.480 FT.

SHEET 1 OF 1

C7-1000

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WATERMAN LASH

SOUNDING TABLE

AFT FLUME TANK CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 55-58 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1.25	6.48	11.70	16.92	22.15	27.37	32.60	37.82	43.04	48.27	53.49	58.71	7.51
1	63.94	69.16	74.38	79.61	84.83	90.06	95.28	100.50	105.73	110.95	116.17	121.40	8.02
2	126.69	132.20	137.72	143.23	148.74	154.26	159.77	165.29	170.80	176.31	181.83	187.34	8.52
3	192.85	198.37	203.88	209.39	214.91	220.42	225.94	231.45	236.96	242.48	247.99	253.50	9.03
4	259.07	264.82	270.57	276.32	282.07	287.81	293.56	299.31	305.06	310.81	316.55	322.30	9.55
5	328.05	333.80	339.54	345.29	351.04	356.79	362.54	368.28	374.03	379.78	385.53	391.28	10.06
6	397.07	403.01	408.95	414.90	420.84	426.78	432.72	438.66	444.60	450.55	456.49	462.43	10.58
7	468.37	474.31	480.25	486.20	492.14	498.08	504.02	509.96	515.90	521.85	527.79	533.73	11.10
8	539.71	545.81	551.92	558.02	564.13	570.23	576.34	582.44	588.55	594.65	600.76	606.86	11.62
9	612.96	619.07	625.17	631.28	637.38	643.49	649.59	655.70	661.80	667.91	674.01	680.11	12.15
10	686.25	692.50	698.74	704.99	711.23	717.48	723.72	729.97	736.21	742.45	748.70	754.94	12.67
11	761.19	767.43	773.68	779.92	786.17	792.41	798.65	804.90	811.14	817.39	823.63	829.88	13.20
12	836.15	842.52	848.89	855.25	861.62	867.99	874.35	880.72	887.09	893.45	899.82	906.19	13.72
13	912.55	918.92	925.29	931.65	938.02	944.39	950.76	957.12	963.49	969.86	976.22	982.59	14.25

TANK 100 PERCENT FULL SOUNDING = 13 FT. 11 6/8 IN CAP. = 987.43 S.W.LTON VCG = 14.76 FT.ABV.B.L.

LOWEST POINT OF TANK 7.500 FT. ABV. B.L.

STRIKING PLATE 0.020 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.480 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 70

547

SOUNDING TABLE

WATERMAN LASH

AFT FLUME TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 55-58 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	1452	2743	4033	5324	6615	7906	9197	10488	11779	13069	14360	15651	7.54
1	16942	18233	19524	20814	22105	23396	24687	25978	27269	28559	29850	31160	8.02
2	32599	34039	35479	36919	38358	39798	41238	42677	44117	45557	46996	48436	8.50
3	49876	51316	52755	54195	55635	57074	58514	59954	61393	62833	64273	65720	9.02
4	67222	68724	70225	71727	73229	74731	76232	77734	79236	80738	82239	83741	9.53
5	85243	86745	88246	89748	91250	92752	94253	95755	97257	98759	100260	101768	10.05
6	103321	104874	106427	107980	109533	111086	112639	114192	115745	117298	118851	120404	10.56
7	121957	123510	125063	126616	128169	129722	131275	132828	134381	135934	137487	139045	11.08
8	140641	142237	143833	145429	147025	148621	150217	151813	153409	155005	156601	158197	11.61
9	159793	161389	162985	164581	166177	167773	169369	170966	172562	174157	175754	177354	12.13
10	178987	180620	182253	183886	185519	187152	188785	190418	192051	193684	195317	196950	12.65
11	198583	200216	201849	203482	205115	206748	208381	210014	211647	213280	214913	216539	13.18
12	218116	219693	221270	222847	224424	226001	227578	229156	230733	232310	233887	235464	13.70
13	237041	238618	240195	241772	243349	244926	246503	248081	249657	251234	252812	254389	14.20
14	255966	257543											14.69

TANK 100 PERCENT FULL SOUNDING = 14 FT. 1 5/8 IN CAP. = 258543.81 GALLONS VCG = 14.76 FT.ABV.B.L.

LOWEST POINT OF TANK 7.500 FT. ABV. B.L.

STRIKING PLATE 0.094 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.480 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

AFT FLUME TANK CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 55-58 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	5.54	10.47	15.40	20.33	25.26	30.19	35.12	40.05	44.98	49.91	54.84	59.77	7.54
1	64.70	69.63	74.56	79.49	84.42	89.35	94.28	99.21	104.14	109.07	114.00	119.01	8.02
2	124.50	130.00	135.50	141.00	146.50	152.00	157.49	162.99	168.49	173.99	179.49	184.99	8.50
3	190.49	195.98	201.48	206.98	212.48	217.96	223.48	228.98	234.47	239.97	245.47	251.00	9.02
4	256.73	262.47	268.21	273.94	279.68	285.41	291.15	296.88	302.62	308.35	314.09	319.82	9.53
5	325.56	331.29	337.03	342.77	348.50	354.24	359.97	365.71	371.44	377.18	382.91	388.67	10.05
6	394.60	400.54	406.47	412.40	418.33	424.26	430.19	436.12	442.05	447.98	453.92	459.85	10.56
7	465.78	471.71	477.64	483.57	489.50	495.43	501.36	507.30	513.23	519.16	525.09	531.04	11.08
8	537.14	543.23	549.33	555.42	561.52	567.61	573.71	579.80	585.90	591.99	598.09	604.19	11.61
9	610.28	616.38	622.47	628.57	634.66	640.76	646.85	652.95	659.05	665.14	671.24	677.35	12.13
10	683.59	689.82	696.06	702.30	708.53	714.77	721.01	727.25	733.48	739.72	745.96	752.19	12.65
11	758.43	764.67	770.90	777.14	783.38	789.61	795.85	802.09	808.32	814.56	820.80	827.01	13.18
12	833.03	839.05	845.07	851.10	857.12	863.14	869.17	875.19	881.21	887.24	893.26	899.28	13.70
13	905.31	911.33	917.35	923.38	929.40	935.42	941.44	947.47	953.49	959.51	965.54	971.56	14.20
14	977.58	983.61											14.69

TANK 100 PERCENT FULL SOUNDING = 14 FT. 1 5/8 IN CAP. = 987.43 S.W.LTON VCG = 14.76 FT.ABV.B.L.

LOWEST POINT OF TANK 7.500 FT. ABV. B.L.

STRIKING PLATE 0.094 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.480 FT.

SHEET 1 OF 1

C7-1000

549

SOUNDING TABLE

WATERMAN LASH

AFT FLUME TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 55-58 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	2440	3654	4869	6083	7297	8512	9726	10940	12155	13369	14583	15798	7.58
1	17012	18226	19441	20655	21869	23084	24298	25512	26727	27941	29157	30593	8.03
2	32029	33464	34900	36336	37771	39207	40643	42078	43514	44950	46385	47821	8.49
3	49257	50692	52128	53564	54999	56435	57871	59306	60742	62178	63614	65112	9.00
4	66611	68109	69607	71106	72604	74103	75601	77100	78598	80096	81595	83093	9.51
5	84592	86090	87588	89087	90585	92084	93582	95080	96579	98077	99576	101126	10.03
6	102677	104227	105777	107327	108877	110427	111978	113528	115078	116628	118178	119728	10.55
7	121279	122829	124379	125929	127479	129029	130580	132130	133680	135230	136781	138374	11.07
8	139968	141562	143155	144749	146343	147936	149530	151124	152717	154311	155904	157498	11.59
9	159092	160685	162279	163873	165466	167060	168654	170247	171841	173434	175029	176659	12.11
10	178290	179921	181552	183183	184814	186445	188076	189707	191338	192968	194600	196230	12.63
11	197861	199492	201123	202754	204385	206016	207647	209278	210909	212539	214169	215673	13.16
12	217177	218681	220184	221688	223192	224696	226199	227703	229207	230710	232214	233718	13.67
13	235222	236726	238229	239733	241237	242741	244244	245748	247252	248756	250259	251763	14.15
14	253267	254771	256274	257778									14.62

TANK 100 PERCENT FULL SOUNDING = 14 FT. 3 4/8 IN CAP. = 258543.81 GALLONS VCG = 14.76 FT.ABV.B.L.

LOWEST POINT OF TANK 7.500 FT. ABV. B.L.

STRIKING PLATE 0.167 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.480 FT.

SHEET 1 OF 1

C7-1000

550

SOUNDING TABLE

WATERMAN LASH

AFT FLUME TANK CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 55-58 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	9.32	13.96	18.59	23.23	27.87	32.51	37.15	41.78	46.42	51.06	55.70	60.33	7.58
1	64.97	69.61	74.25	78.89	83.52	88.16	92.80	97.44	102.07	106.71	111.36	116.84	8.03
2	122.32	127.81	133.29	138.77	144.26	149.74	155.22	160.71	166.19	171.67	177.15	182.64	8.49
3	188.12	193.60	199.09	204.57	210.05	215.54	221.02	226.50	231.99	237.47	242.95	248.68	9.00
4	254.40	260.12	265.84	271.57	277.29	283.01	288.74	294.46	300.18	305.90	311.63	317.35	9.51
5	323.07	328.79	334.52	340.24	345.96	351.69	357.41	363.13	368.85	374.58	380.30	386.22	10.03
6	392.14	398.06	403.98	409.90	415.82	421.74	427.66	433.58	439.51	445.43	451.35	457.27	10.55
7	463.19	469.11	475.03	480.95	486.87	492.79	498.71	504.63	510.55	516.47	522.39	528.48	11.07
8	534.57	540.65	546.74	552.83	558.91	565.00	571.08	577.17	583.26	589.34	595.43	601.52	11.59
9	607.60	613.69	619.78	625.86	631.95	638.03	644.12	650.21	656.29	662.38	668.47	674.70	12.11
10	680.93	687.16	693.38	699.61	705.84	712.07	718.30	724.53	730.76	736.98	743.21	749.44	12.63
11	755.67	761.90	768.13	774.36	780.59	786.82	793.04	799.27	805.50	811.73	817.96	823.70	13.16
12	829.44	835.18	840.93	846.67	852.41	858.16	863.90	869.64	875.39	881.13	886.87	892.62	13.67
13	898.36	904.10	909.84	915.59	921.33	927.07	932.82	938.56	944.30	950.05	955.79	961.53	14.15
14	967.28	973.02	978.76	984.51									14.62

TANK 100 PERCENT FULL SOUNDING = 14 FT. 3 4/8 IN CAP. = 987.43 S.W.LTON VCG = 14.76 FT.ABV.B.L.

LOWEST POINT OF TANK 7.500 FT. ABV. B.L.

STRIKING PLATE 0.167 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 57.480 FT.

SHEET 1 OF 1

C7-1000

551

SOUNDING TABLE

WATERMAN LASH

BILGE SLOP CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 86-88 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	101	240	379	518	657	796	996	1223	1450	1677	1904	2131	0.03
1	2407	2706	3005	3304	3603	3902	4240	4600	4959	5319	5679	6038	0.61
2	6429	6839	7249	7659	8069	8479	8915	9367	9819	10271	10723	11175	1.22
3	11648	12136	12624	13112	13600	14088	14594	15113	15633	16152	16672	17191	1.83
4	17726	18273	18821	19369	19916	20464	21025	21598	22171	22744	23317	23890	2.42
5	24474	25070	25666	26262	26858	27454	27934	28274	28614	28954	29295	29635	3.01
6	29947	30223	30500	30776	31052	31328	31575	31782	31989	32197	32404	32611	3.46
7	32799	32960	33120	33281	33442	33603	33752	33884	34016	34148	34280	34411	3.72
8	34532	34635	34738	34841	34944	35047	35140	35214	35288	35362	35436	35510	3.91
9	35576	35626	35677	35727	35767	35797	35827	35857	35887	35918	35940	35955	4.04
10	35969	35976	35982	35989	35995	36002	36008	36010	36011				4.10

TANK 100 PERCENT FULL SOUNDING = 10 FT. 8 2/8 IN CAP. = 36011.57 GALLONS VCG = 4.11 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.978 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

BILGE SLOP CL

TRIM 0.0 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 86-88 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.38	0.91	1.45	1.98	2.51	3.04	3.80	4.67	5.54	6.41	7.27	8.14	0.03
1	9.19	10.33	11.48	12.62	13.76	14.90	16.19	17.57	18.94	20.31	21.69	23.06	0.61
2	24.56	26.12	27.69	29.25	30.82	32.38	34.05	35.77	37.50	39.23	40.95	42.68	1.22
3	44.49	46.35	48.21	50.08	51.94	53.81	55.74	57.72	59.70	61.69	63.67	65.66	1.83
4	67.70	69.79	71.88	73.97	76.06	78.16	80.30	82.49	84.67	86.86	89.05	91.24	2.42
5	93.47	95.75	98.03	100.30	102.58	104.85	106.69	107.98	109.28	110.58	111.88	113.18	3.01
6	114.37	115.43	116.48	117.54	118.59	119.65	120.59	121.38	122.17	122.96	123.76	124.55	3.46
7	125.27	125.88	126.49	127.11	127.72	128.34	128.91	129.41	129.91	130.42	130.92	131.42	3.72
8	131.89	132.28	132.67	133.07	133.46	133.85	134.21	134.49	134.77	135.05	135.34	135.62	3.91
9	135.87	136.06	136.26	136.45	136.60	136.72	136.83	136.95	137.06	137.18	137.26	137.32	4.04
10	137.37	137.40	137.42	137.45	137.47	137.50	137.52	137.53	137.53				4.10

TANK 100 PERCENT FULL SOUNDING = 10 FT. 8 2/8 IN CAP. = 137.54 S.W.LTON VCG = 4.11 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.060 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.978 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

BILGE SLOP CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 86-88 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	105	225	345	465	585	705	910	1130	1349	1569	1789	2008	0.04
1	2289	2582	2875	3168	3461	3754	4096	4451	4805	5160	5515	5869	0.59
2	6264	6670	7076	7482	7887	8293	8732	9180	9629	10078	10526	10975	1.20
3	11450	11936	12421	12906	13391	13876	14383	14900	15417	15934	16450	16967	1.80
4	17503	18049	18594	19139	19685	20230	20792	21363	21934	22505	23076	23647	2.40
5	24233	24827	25421	26016	26610	27204	27661	28030	28399	28768	29137	29506	2.99
6	29824	30107	30390	30673	30956	31239	31482	31696	31910	32123	32337	32551	3.45
7	32736	32900	33064	33227	33391	33555	33703	33837	33972	34106	34241	34375	3.71
8	34494	34600	34706	34811	34917	35023	35113	35190	35267	35344	35420	35497	3.90
9	35562	35615	35668	35721	35760	35792	35823	35855	35886	35918	35940	35956	4.04
10	35970	35976	35983	35990	35996	36003	36008	36010	36011				4.10

TANK 100 PERCENT FULL SOUNDING = 10 FT. 8 1/8 IN CAP. = 36011.57 GALLONS VCG = 4.11 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.073 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.978 FT.

SHEET 1 OF 1

C7-1000

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SOUNDING TABLE

WATERMAN LASH

BILGE SLOP CL

TRIM 5.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 86-88 CL

FT.	0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.40	0.86	1.32	1.78	2.24	2.69	3.48	4.31	5.15	5.99	6.83	7.67	0.04
1	8.74	9.86	10.98	12.10	13.22	14.34	15.64	17.00	18.35	19.71	21.06	22.42	0.59
2	23.92	25.47	27.02	28.57	30.12	31.67	33.35	35.06	36.78	38.49	40.20	41.92	1.20
3	43.73	45.58	47.44	49.29	51.14	52.99	54.93	56.91	58.88	60.85	62.83	64.80	1.80
4	66.85	68.93	71.01	73.10	75.18	77.26	79.41	81.59	83.77	85.95	88.13	90.31	2.40
5	92.55	94.82	97.09	99.36	101.63	103.90	105.64	107.05	108.46	109.87	111.28	112.69	2.99
6	113.91	114.99	116.07	117.15	118.23	119.31	120.24	121.05	121.87	122.69	123.50	124.32	3.45
7	125.03	125.65	126.28	126.90	127.53	128.15	128.72	129.23	129.74	130.26	130.77	131.29	3.71
8	131.74	132.14	132.55	132.95	133.35	133.76	134.10	134.40	134.69	134.98	135.28	135.57	3.90
9	135.82	136.02	136.22	136.43	136.57	136.70	136.82	136.94	137.06	137.18	137.26	137.32	4.04
10	137.38	137.40	137.43	137.45	137.48	137.50	137.52	137.53	137.53				4.10

TANK 100 PERCENT FULL SOUNDING = 10 FT. 8 1/8 IN CAP. = 137.54 S.W.LTON VCG = 4.11 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.073 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.978 FT.

SHEET 1 OF 1

C7-1000

RED. 8X DATE 7-81
MA. NO. H-199 BLDR. NO. 29-01-04
FRAME NO. 71

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WATERMAN LASH

SOUNDING TABLE

BILGE SLOP CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN GALLONS CORRESPONDING TO EACH INCH OF SOUNDING FR 86-88 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	105	207	310	412	514	617	829	1041	1253	1465	1677	1889	0.04
1	2174	2461	2748	3034	3321	3608	3955	4304	4654	5003	5353	5703	0.57
2	6101	6502	6904	7306	7708	8109	8551	8996	9441	9886	10332	10777	1.18
3	11254	11736	12219	12701	13183	13665	14174	14688	15202	15717	16231	16745	1.78
4	17283	17826	18369	18912	19454	19997	20561	21130	21699	22267	22836	23405	2.38
5	23992	24584	25177	25769	26361	26954	27398	27794	28191	28588	28984	29381	2.97
6	29698	29988	30278	30567	30857	31147	31386	31606	31827	32047	32268	32488	3.44
7	32670	32837	33004	33171	33338	33505	33652	33789	33926	34063	34200	34338	3.71
8	34455	34563	34672	34780	34888	34996	35086	35165	35244	35324	35403	35482	3.90
9	35546	35602	35658	35713	35751	35785	35818	35851	35884	35918	35939	35956	4.04
10	35970	35976	35983	35990	35997	36004	36009	36010					4.10

TANK 100 PERCENT FULL SOUNDING = 10 FT. 8 INCHES CAP. = 36011.57 GALLONS VCG = 4.11 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.085 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.978 FT.

C7-1000

SHEET 1 OF 1

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WATERMAN LASH

SOUNDING TABLE

BILGE SLOP CL

TRIM 10.00 FT. AFT
LIST 0.0 DGR.

CAPACITY IN S.W.LTON CORRESPONDING TO EACH INCH OF SOUNDING FR 86-88 CL

FT.	INCHES 0	1	2	3	4	5	6	7	8	9	10	11	VCG ABV. B.L.
0	0.40	0.79	1.18	1.57	1.96	2.36	3.17	3.98	4.79	5.60	6.40	7.21	0.04
1	8.30	9.40	10.49	11.59	12.68	13.78	15.10	16.44	17.77	19.11	20.44	21.78	0.57
2	23.30	24.83	26.37	27.90	29.44	30.97	32.66	34.36	36.06	37.76	39.46	41.16	1.18
3	42.98	44.82	46.67	48.51	50.35	52.19	54.13	56.10	58.06	60.02	61.99	63.95	1.78
4	66.01	68.08	70.15	72.23	74.30	76.37	78.53	80.70	82.87	85.04	87.22	89.39	2.38
5	91.63	93.89	96.16	98.42	100.68	102.94	104.64	106.15	107.67	109.18	110.70	112.21	2.97
6	113.42	114.53	115.64	116.74	117.85	118.96	119.87	120.71	121.55	122.39	123.24	124.08	3.44
7	124.77	125.41	126.05	126.69	127.33	127.96	128.52	129.05	129.57	130.09	130.62	131.14	3.71
8	131.59	132.00	132.42	132.83	133.24	133.66	134.00	134.30	134.61	134.91	135.21	135.51	3.90
9	135.76	135.97	136.18	136.40	136.54	136.67	136.80	136.92	137.05	137.18	137.26	137.32	4.04
10	137.37	137.40	137.43	137.45	137.48	137.51	137.52	137.53					4.10

TANK 100 PERCENT FULL SOUNDING = 10 FT. 8 INCHES CAP. = 137.54 S.W.LTON VCG = 4.11 FT.ABV.B.L.

LOWEST POINT OF TANK 0.0 FT. ABV. B.L.

STRIKING PLATE 0.085 FT. ABV.LOWEST PT.TANK
TOTAL LENGTH 11.978 FT.

C7-1000

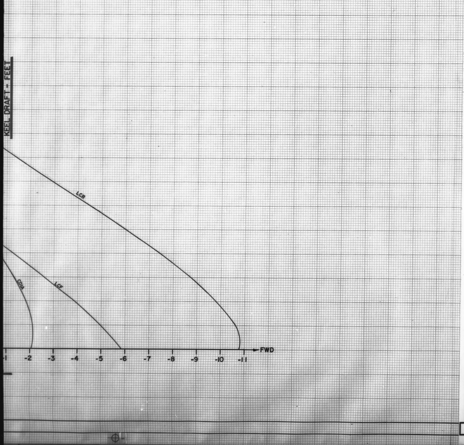
SHEET 1 OF 1

RED. 8X DATE 7-81
MA. NO. H-200 BLDR. NO. 29-01-05
FRAME NO. 1

DECREASE
DISPLACEMENT

KEEL DRAFT (FT.)	MOLDED DISPL. S.W. (L.T.)	TOTAL DISPL. S.W. (L.T.)	TOTAL DISPL. F.W. (L.T.)	K B (FT.)	L.C.B. FROM ⊠ (FT.) (+ AFT)	T P I (TON / IN)	L.C.F. FROM ⊠ (FT.) (+ AFT)	MT 1" (FT-TON/IN)	ML 1" (FT-TON/IN)	KMT (FT.)	KML (FT.)	WETTED SURFACE (SQ. FT.)	CHANGE IN DISPL. PER INCH TRIM AFT TON/INCH
28'-0"	37,810.6	38,053.1	36,996.1	15.60	+ 12.55	148.43	+ 49.24	6712.2	275.01	47.67	1726.70	88,677	+ 9.17
38'-1 1/4"	56,688.8	57,033.7	55,449.5	21.40	+ 27.61	161.11	+ 58.21	8297.7	323.89	45.81	1431.03	108,296	+ 11.76

KEEL DRAFT (FT.)	COEFFICIENTS			
	BLOCK	WATER PLANE	PRISMATIC	MIDSHIP AREA
28'-0"	0.595	0.782	0.641	0.928
38'-1 1/4"	0.655	0.849	0.691	0.947



GENERAL NOTES

1. THE MOLDED DISPLACEMENT INCLUDES THE PORTION OF THE HULL FORWARD OF STATION "0". (F.P.)
2. ALL CURVES EXCEPT THE MOLDED DISPL. ARE CORRECTED FOR ALL APPENDAGES SUCH AS SHELL PLATING, RUDDER, PROPELLER, SKEGS, ETC.
3. THE MOMENT TO TRIM 1" AND THE CHANGE IN DISPLACEMENT PER INCH TRIM AFT ARE BASED ON THE L.B.P. (797'-4")
4. MIDSHIP (REFERENCE LINE) IS AT 398.67' FROM F.P.
5. THE BOTTOM OF THE KEEL PLATING IS 1-1/16" BELOW THE B.L.
6. ASSUMED V.C.G. FOR MT1" IS 39.0' ABV. BL.

PRINCIPAL DIMENSIONS

LENGTH OVERALL (EXCLUDING CRANE OVERHANG) — 845'-4"
LENGTH BETWEEN PERPENDICULARS — 797'-4"
DRAFT TO SCANT. W.L. (KEEL) — 38'-1 1/4"
BEAM MAXIMUM (MOLDED) — 100'-0"
DEPTH (MOLDED) TO MN. DECK AT SIDE — 60'-0"

REFERENCES

REV	NO	TITLE	DRAWING NO
	2	TABLE OF OFFSETS	05-00-03
	1	LINE PLAN	05-00-01

REVISIONS

REV	ZONE	DESCRIPTION
1		CORRECTED SCALE FACTOR FOR KMT CURVE
2		FORM COEFFICIENTS ADDED TO DRAWING PER F&G LTR L-722/1888 DATED APRIL 18, 1979.
3		REVISED DWG. TO INCLUDE BOW THRUSTER EFFECT ON APPENDAGE DATA. ALSO CORRECTED TABULATED PROPERTIES TO REFLECT SCANTLING DRAFT OF 38'-1 1/4" IN LIEU OF 38'-0" JJM 6-17-80

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0						
1	12-28-78 JJM	F&G 1-9-79				
2	4-2-80 JJM	NOT REQ'D.				
3						
4						
5						
6						
7						
8						
9						
10						

ASI DWG NO 29-01-05 REV 3

RESERVATIONS

NO	DESCRIPTION

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY RICHOUX DATE 10-24-78
CHECKED BY DFN DATE 10-24-78
APVD [signature] 10/25/78
APVD [signature] PROJECT MANAGER 10/25/78
APVD [signature] VP/CHIEF ENGINEER

HYDROSTATIC CURVES

SIZE H — A S I DWG NO C7-1000 29-01-05 — REV 3
SCALE — KEY PLAN

DISTRIBUTION

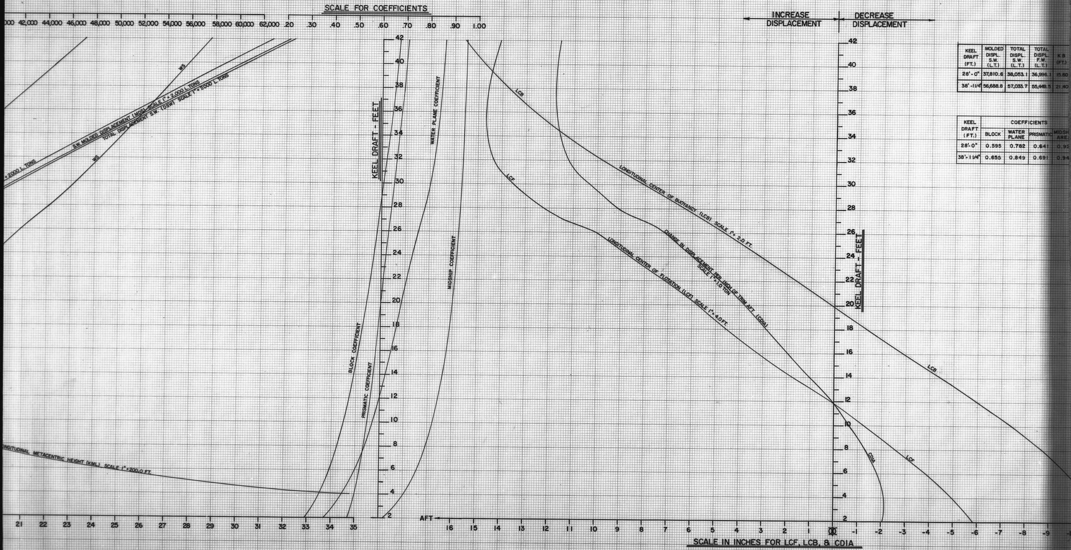
DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

C7-1000 29-01-05

DISTRIBUTION

DEPARTMENT	0	1	2	3
PRODUCTION	4	4	5	5
PROD PLANNING			1	1
MOLD LOFT				
ESTIMATING				
PROJECT MANAGER	1	1	1	1
QUALITY CONTROL				
COMPUTER APPL				
ELECTRICAL				
ENGR STANDARDS				
FILES & RECORDS	1	1	1	1
HULL				
HULL COMPOSITE				
DESIGN		1	1	1
OUTFITTING				
STL TAKE OFF				
H V A C				
MATERIAL REQN				
MECHANICAL	1	1	1	1
MECH COMPOSITE				
RESEARCH & DEV				
BAYOU BLACK				
HARVEY				
INDUSTRIAL DIV				
SERVICE FOUNDRY				
JOINER CONTRACTOR				
ADMEASURER				
ABS (NY)				
ABS (NO)				
ABS (YARD)				
USCG (NO)	2	2		
USCG (YARD)			1	1
USPHS				
OWNER (HOME)	1	1	1	1
OWNER (YARD)				
MARAD (WASH)	2	2	2	2
MARAD (YARD)	1	1	1	1
FRIEDE & GOLDMAN	3	3	3	3
F&G (Y)		1	1	1
Sig Solares			1	1
TOTAL				
DATE OF PRINT ISSUE				

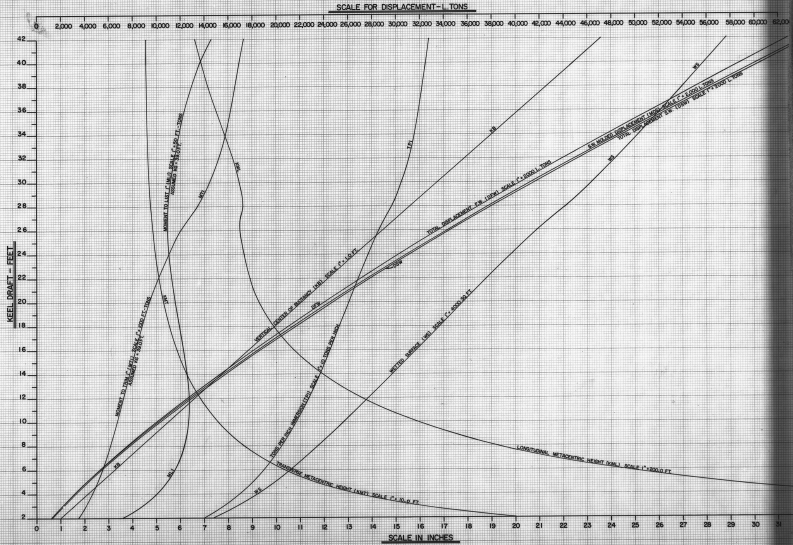
29-01-05 C7-1000

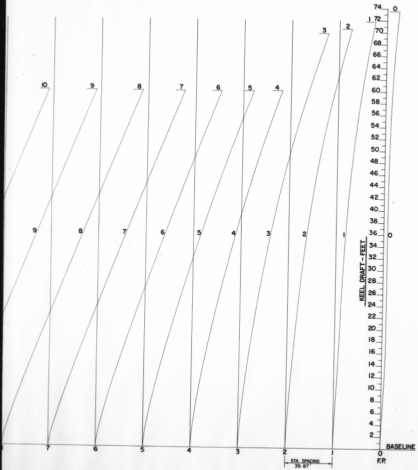


KEEL DRAFT (FT.)	MOLDED DISPL. S.W. (L.T.)	TOTAL DISPL. S.W. (L.T.)	TOTAL DISPL. F.W. (L.T.)	K B (FT.)
28'-0"	37,810.6	38,053.1	36,996.1	15.60
38'-11/4	56,688.8	57,033.7	55,449.5	21.40

KEEL DRAFT (FT.)	COEFFICIENTS			
	BLOCK	WATER PLANE	PRISMATIC	MIDSH AREA
28'-0"	0.595	0.782	0.641	0.92
38'-11/4"	0.655	0.849	0.691	0.94

RED. 8X DATE 7-81
MA. NO. H-200 BLDR. NO. 29-01-05
FRAME NO. 2


SCALE FOR DISPLACEMENT - L. TONS
0
2,000
4,000
6,000
8,000
10,000
12,000
14,000
16,000
18,000
20,000
22,000
24,000
26,000
28,000
30,000
32,000
34,000
36,000
38,000
40,000
42,000
44,000
46,000
48,000
50,000
52,000
54,000
56,000
58,000
60,000
62,000
KEEL DRAFT - FEET
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
SCALE IN INCHES
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
MOMENT TO TRIM 1" (MT1) SCALE 1" = 1000 FT.-TONS ASSUMED KG = 33.0 FT.
MOMENT TO LIST 1° (ML1) SCALE 1" = 50 FT.-TONS ASSUMED KG = 33.0 FT.
MT1
ML1
KMT
KML
KB
TP1
WS
DFW
DSW
VERTICAL CENTER OF BUOYANCY (KB) SCALE 1" = 1.0 FT.
TONS PER INCH IMMERSION (TP1) SCALE 1" = 10 TONS PER INCH
WETTED SURFACE (WS) SCALE 1" = 4000 SQ. FT.
TOTAL DISPLACEMENT F.W. (DFW) SCALE 1" = 2000 L. TONS
S.W. MOLDED DISPLACEMENT (MDSW) SCALE 1" = 2,000 L. TONS
TOTAL DISPLACEMENT S.W. (DSW) SCALE 1" = 2000 L. TONS
TRANSVERSE METACENTRIC HEIGHT (KMT) SCALE 1" = 10.0 FT.
LONGITUDINAL METACENTRIC HEIGHT (KML) SCALE 1" = 200.0 FT.



GENERAL NOTES

1. SCALES:
   (A) HORIZONTAL 1" = 20'-0"
   (B) VERTICAL 1" = 4'-0"
   (C) AREA (MOLDED) 1" = 1000 SQ. FT.
2. AREAS ARE PLOTTED FOR FULL SECTIONS.
3. STATION SPACING = 39.87 FT.

PRINCIPAL DIMENSIONS

LENGTH OVERALL (EXCLUDING CRANE OVERHANG)	845'-4"
LENGTH BETWEEN PERPENDICULARS	797'-4"
DRAFT TO SCANTLING W.L. (MOLDED)	38'-0"
BEAM MAXIMUM (MOLDED)	100'-0"
DEPTH (MOLDED) TO MN. DK. AT SIDE	60'-0"

REVISIONS

REV	ZONE	DESCRIPTION

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0						
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

REFERENCES

REV	NO	TITLE	DRAWING NO

A S I JOB NO C7-1000

WATERMAN STEAMSHIP CORP — LASH

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY A. RICHOUX DATE 11-9-78
CHECKED BY D.F.N. DATE 11-9-78
APVD 11-9-78
APVD PROJECT MANAGER 11/9/78
APVD VP/CHIEF ENGINEER

BONJEAN CURVES

SIZE H — A S I DWG NO C7-1000 29-01-06 — REV 0
SCALE NOTED

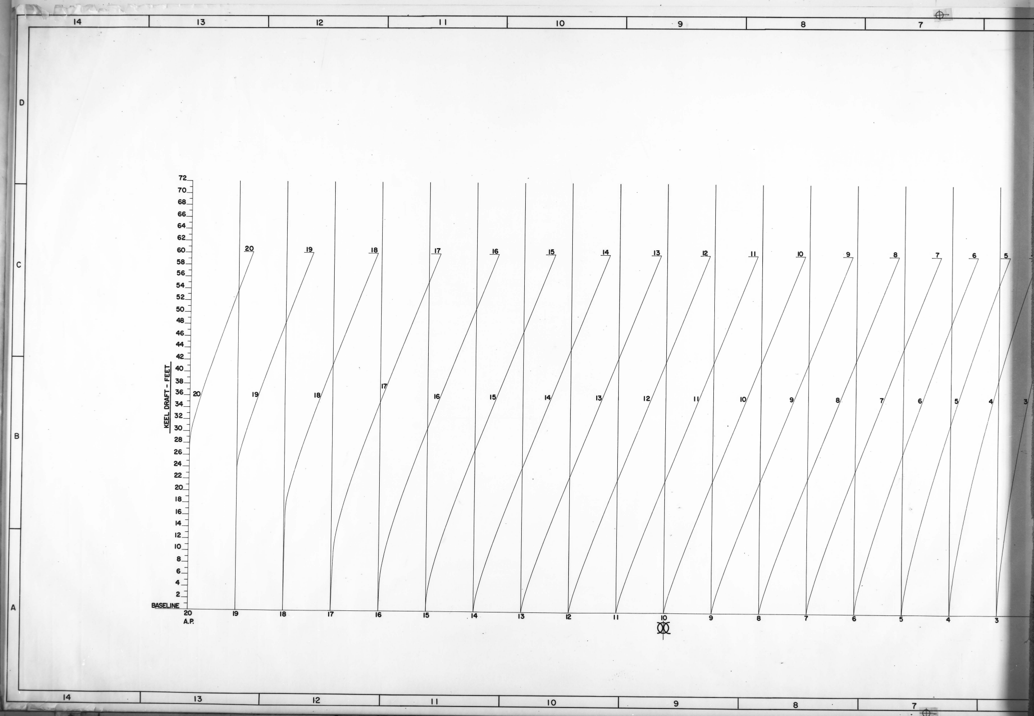
KEY PLAN

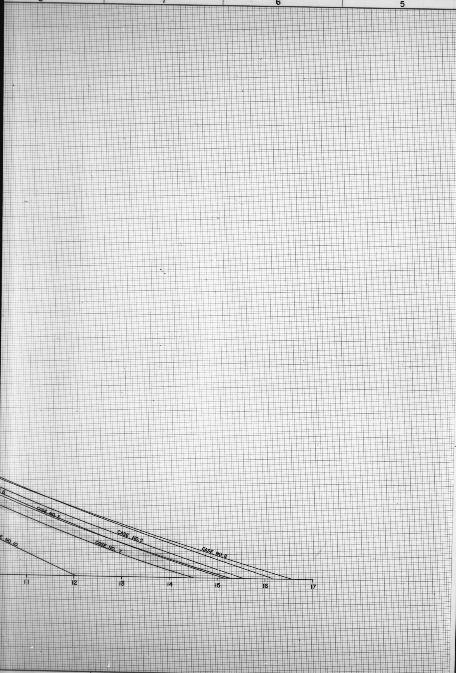
A S I DWG NO 29-01-06 REV 0

DISTRIBUTION

DEPARTMENT	REVISION
PRODUCTION	
PROD PLANNING	
MOLD LOFT	
ESTIMATING	
PROJECT MANAGER	
QUALITY CONTROL	
COMPUTER APPL	
ELECTRICAL	
ENGR STANDARDS	
FILES & RECORDS	
HULL	
HULL COMPOSITE	
DESIGN	
OUTFITTING	
STL TAKE OFF	
H V A C	
MATERIAL REQN	
MECHANICAL	
MECH COMPOSITE	
RESEARCH & DEV	
BAYOU BLACK	
HARVEY	
INDUSTRIAL DIV	
SERVICE FOUNDRY	
JOINER CONTRACTOR	
ADMEASURER	
ABS (NY)	
ABS (NO)	
ABS (YARD)	
USCG (NO)	
USCG (YARD)	
USPHS	
OWNER (HOME)	
OWNER (YARD)	
MARAD (WASH)	
MARAD (YARD)	
TOTAL	
DATE OF PRINT ISSUE	

C7-1000 29-01-06


KEEL DRAFT - FEET
BASELINE
20 A.P.



GENERAL NOTES

1. THE REQUIRED GM VALUES PLOTTED ON THIS DRAWING HAVE BEEN CALCULATED TO MEET A ONE COMPARTMENT STANDARD OF SUBDIVISION. THE CALCULATIONS HAVE BEEN DONE IN ACCORDANCE WITH REF. 2.
2. MAXIMUM HEEL HAS BEEN LIMITED TO THE LEAST OF THE FOLLOWING NUMBERS: (A) 15°, (B) MARGIN LINE (C) 2" RESIDUAL GM.
3. POINTS USED TO PLOT THE CURVES HAVE BEEN TAKEN FROM REF. 1, WITH ALL THE DAMAGE ASSUMPTIONS MENTIONED THERE BEING APPLICABLE.

PRINCIPAL DIMENSIONS

LENGTH OVERALL (TO END OF TRANSOM)	861'-4"
LENGTH BETWEEN PERPENDICULARS	797'-3"
BEAM MAXIMUM MOLDED	100'-0"
DEPTH TO MN. DK. AT SIDE (MINIMUM MOLDED)	60'-0"
SCANTLING DRAFT	38'-0"

DAMAGE CASE DESCRIPTION

CASE	FRAMES	COMPARTMENT	CONDITION
CASE NO. 1	FRS. 44-52	FUEL OIL TANK CL.	98% FULL F.O. & DAMAGED
		ACCOMODATIONS	FLOODED
		SEWAGE EQUIP. RM.	FLOODED
		TUNNEL BETWEEN FR. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 2	FRS. 52-61	NO. 1 HOLD	FLOODED
		NO. 1 S.W. BALLAST TANK CL.	100% FULL S.W. & DAMAGED
		FWD FLUME TK. CL.	100% FULL S.W. & DAMAGED
		AFT FLUME TK. CL.	100% FULL S.W. & DAMAGED
		NO. 1A & NO. 1B DB VOID FRS. 55-61	EMPTY & DAMAGED
		NO. 1B WING VOID FRS. 58-61	EMPTY & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 3	FRS. 61-70	NO. 2 HOLD	FLOODED
		NO. 2 WING S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		NO. 2 DB. S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 4	FRS. 61-70	NO. 2 HOLD	FLOODED
		NO. 2A WING S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		NO. 2 DB. S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		NO. 2A WING TRUNK P	EMPTY & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 5	FRS. 70-76	NO. 3 HOLD	FLOODED
		NO. 2A WING S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		NO. 2A WING TRUNK	EMPTY & DAMAGED
		NO. 3 DB. SW. BALLAST TK. P	100% FULL S.W. & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 6	FRS. 70-76	NO. 3 HOLD	FLOODED
		NO. 3 WING F.O. TANK P	98% FULL F.O. & DAMAGED
		NO. 3 DB. S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		NO. 3 WING F.O. OVFW TK. P	EMPTY & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 7	FRS. 76-85	NO. 4 HOLD	FLOODED
		NO. 3 WING F.O. TANK P	98% FULL F.O. & DAMAGED
		NO. 4 DB. S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		NO. 3 WING TRUNK	EMPTY & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 8	FRS. 76-85	NO. 4 HOLD	FLOODED
		NO. 4 WING S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		NO. 4 DB. S.W. BALLAST TK. P	100% FULL S.W. & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 9	FRS. 85-95	NO. 5 HOLD	FLOODED
		ENGINE ROOM	FLOODED
		ENGINE ROOM DB. VOID	EMPTY & DAMAGED
		POTABLE WATER TANK	100% FULL F.W. & DAMAGED
		DISTILLED WATER TANK	100% FULL F.W. & DAMAGED
		DIESEL OIL TANK	98% FULL D.O. & DAMAGED
		DISTILLED WATER TRUNK	EMPTY & DAMAGED
		ENGINEERS MACHINE SHOP	FLOODED
		F.W. COFFERDAMS	FLOODED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 10	FRS. 95-101	NO. 6 HOLD	FLOODED
		NO. 6 WING F.O. TANK P	98% FULL F.O. & DAMAGED
		NO. 6 DB. VOID	EMPTY & DAMAGED
		NO. 6 WING TRUNK	EMPTY & DAMAGED
		NO. 6 WING F.O. OVFW	EMPTY & DAMAGED
		SHAFT ALLEY	FLOODED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 3A	FRS. 61-70	NO. 2 HOLD	FLOODED
		NO. 2 WING S.W. BALLAST TK. P	EMPTY & DAMAGED
		NO. 2 DB. S.W. BALLAST TANK P	EMPTY & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 4A	FRS. 61-70	NO. 2 HOLD	FLOODED
		NO. 2 A WING S.W. BALLAST TK. P	EMPTY & DAMAGED
		NO. 2 DB. S.W. BALLAST TANK P	EMPTY & DAMAGED
		NO. 2 A WING TRUNK P	EMPTY & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED
CASE NO. 8A	FRS. 76-85	NO. 4 HOLD	FLOODED
		NO. 4 WING S.W. BALLAST TK. P	EMPTY & DAMAGED
		NO. 4 DB. S.W. BALLAST TK. P	EMPTY & DAMAGED
		TUNNEL BETWEEN FRS. 52-121 P	FLOODED
		STEERING GEAR ROOM	FLOODED

REFERENCES

REV	NO	TITLE	DRAWING NO
	3	HYDROSTATIC CURVES	29-01-05
	2	RULES & REGULATIONS FOR PASSENGER VESSELS (USCG)	
	1	DAMAGE STABILITY CALCULATIONS	29-01-08

REVISIONS

REV	ZONE	DESCRIPTION
1		REVISED DAMAGED CONDITIONS 4, 5, 6, 7 & 4A TO SUIT CORRECTION IN DESCRIPTION OF 2A WING TANK & 3 WING TANK. BY: AJR. 7-18-79 APRVD: [signature] 8/21/79

APPROVALS

REV	ASI	OWNER	ABS	USCG	USPHS	MARAD
0						
1						
2						
3						
4						
5						
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7						
8						
9						
10						

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY A. RICHOUX DATE 5-28-79
CHECKED BY J FISHER DATE 5-28-79
APVD [signature] 6/1/79
APVD [signature] 6-1-79 PROJECT MANAGER
APVD NOT REQ'D VP/CHIEF ENGINEER

DAMAGE STABILITY CURVES

SIZE H — A S I DWG NO C7-1000 29-01-07 — REV 1
SCALE

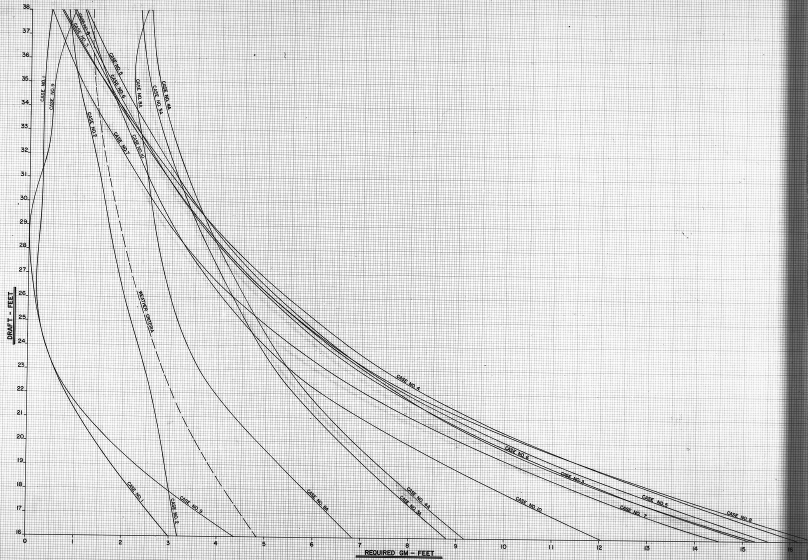
A S I DWG NO 29-01-07 REV 1

DISTRIBUTION

DEPARTMENT: PRODUCTION, PROD PLANNING, MOLD LOFT, PLANT ENGR & MAINT, ESTIMATING, PROJECT MANAGER, QUALITY CONTROL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, BAYOU BLACK, HARVEY, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, MARAD (WASH), MARAD (YARD), OWNER (HOME), OWNER (YARD), ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, F+G (H), F+G (Y), J. J. Mc MULLEN, TOTAL, DATE OF ISSUE

C7-1000 29-01-07

RED. 8X DATE 7-81
MA. NO. H-202 BLDR. NO. 29-01-07
FRAME NO. 1


DRAFT - FEET
REQUIRED GM - FEET
CASE NO. 1
CASE NO. 2
CASE NO. 3
CASE NO. 3A
CASE NO. 4
CASE NO. 4A
CASE NO. 5
CASE NO. 6
CASE NO. 7
CASE NO. 8
CASE NO. 8A
CASE NO. 9
CASE NO. 10
WEATHER CRITERIA

PRINT DISTRIBUTION

DEPT.	PREL.	0	1
MOLD LOFT			
PRODUCTION			
PROD. PLANNING			
ENGINEERING FILE		1	1
ESTIMATING			
MATERIAL REQN.			
PROJECT MANAGER		1	1
QUALITY CONTROL			
STEEL TAKE OFF			
DESIGN SECTION		1	1
ELECTRICAL SECTION			
H.V.A.C. SECTION			
HULL SECTION			
MECH. COMPOSITE			
MECHANICAL DESIGN			
MECHANICAL DEV.			
OUTFITTING SECTION			
HULL COMPOSITE			
A.B.S.-(N.O.)			
A.B.S.-(N.Y.)			
A.B.S.-INSP.			
ADMEASURER			
U.S.C.G.		2	
U.S.C.G.-INSP.			1
U.S.P.H.S.			
JOINER CONTR.			
OWNER (H)		1	1
MARAD (H)		2	2
MARAD (Y)		1	1
F & G (H)		3	3
F & G (Y)		1	1
TOTAL		13	12
DATE OF PRINT ISSUE		6/6/79	8/[illegible]/79

Form ED-STB-2

INDEX

DWG. NO. C7-1000 29-01-08

INDEX & PRINT DISTRIBUTION

SHEET NO. 2

A S I DWG NO 29-01-08 REV 1

RESERVATIONS

NO.	DESCRIPTION

M A DESIGN	NAME OF VESSEL	A S I HULL NO	M A HULL NO
C9-S-81f	BENJAMIN HARRISON	2307	336
C9-S-81f	EDWARD RUTLEDGE	2308	337

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY J FISHER DATE 5-31-79

CHECKED BY DN DATE 6/6/79

APVD [signature] 6/6/79

APVD [signature] 6/6/79 PROJECT MANAGER

APVD NOT REQ'D. VP/CHIEF ENGINEER

DAMAGE STABILITY CALCULATIONS

SIZE A A S I DRAWING NO **C7-1000** 29-01-08 REV 1

SCALE SH NO 1 OF 51

Form A-HTB-W (12-77)

REFERENCES

REV.	NO.	TITLE	DRAWING NO.
	1	Rules and REgulations For Passenger Vessels USCG	
	2	Damage Stability Curves	29-01-07
	3	Hydrostatic Curves	29-01-05
	4	Tables of Offsets	05-00-03
	5	Capacity Plan	29-01-01
	6		
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DWG. NO. C7-1000 29-01-08

REFERENCES

SHEET NO. 3

Form ED-SMB-5

REVISIONS

REV.	SHT. NO.	ITEM NO.	DESCRIPTION	BY	A.S.I. APRVD DATE	OWNER APRVD DATE
1			1. Revised Damaged Condition 4, 5,6,7 & 4A to suit correction in description of 2A Wing Tank and 3 Wing Tank. 2. Added General Note 7 to suit Friede and Goldman, Ltd. letter: S/N:L-772/2164, dated June 26,1979. 3. Revised formula on Page 7 to correct.	JTF 8-20-79	[illegible] 8/21/79	

DWG. NO. C7-1000 29-01-08

REVISIONS

SHEET NO. 4

Form ED-SMB-4

RED. 6X DATE 7-81
MA. NO. H-203 BLDR. NO. 29-01-08
FRAME NO. 1

DESCRIPTION OF CALCULATIONS

I. METHOD OF CALCULATION:

A) Fifty-Seven (57) Transverse Sections are used to describe the intact ship. For each damaged compartment; as many stations as needed are used to accurately describe the compartment or tank.

B) By sucessive trials, the trim and draft that will balance the weight and longitudinal center of gravity of the ship at intact draft with no heel are determined. The same calculations are then performed after introducing a 1° heel. The shift of the transverse center of buoyancy between these two conditions is used to determine the KM after damage.

C) If a heeling moment exists, the above calculations are repeated for 7°, 15° and heel to margin line.

D) For each equilibrium condition corresponding to each heel, the transverse center of buoyancy is computed.

E) The TCB for the first two angles (0° and 1°), as previously mentioned, is used to determine the KM after damage, the TCB for the remaining three angles (7°, 15° & heel to margin line) is used to compute the KG that will limit the heel to that angle and the corresponding Required GM, prior to damage.

F) Of these three computed conditions, only the one for heel to the margin line is printed, if the heel to the margin line is the smallest, in all other cases, the results are printed for the two smaller angles.

G) The permeabilities for the various damaged compartments are 95% for ballast and accommodation spaces, 85% for machinery spaces and 72% for cargo spaces.

H) When computing the Available GM, the Actual KG is used with the calculated TCB to obtain the Righting Arm and the Actual Heel, if any, after damage. The Available GM is the difference between the KM, after damage and the Actual KG.

I) In the case of symmetrical flooding, the sum of the Available and Required GM should be equal to the Available GM before damage plus 2 inches.

J) Assuming the form gain factor is negligible for 1° Heel and since the TCB is computed about an axis perpendicular to the waterline:

1) $$\text{"KM" after damage} = \frac{TCB_{1^\circ} - TCB_{0^\circ} \times COS_{1^\circ}}{SIN\ 1^\circ}$$

GENERAL NOTES

1. The Required GM Values have been calculated to meet a one compartment standard of subdivision. The calculations have been done in accordance with Reference 1.

2. Maximum Heel has been limited to the least of the following numbers:

   (A) 15°, (B) Margin Line , (C) 2" Residual GM..

3. The Available Computed Metacentric Height, GM_T, for any loading condition corrected for Free Surface must always be greater than the Required GM_T shown on Page 11.

4. Each loading condition must be within the allowable hull girder limits referred to in the vessel's loading manual and/or loading computer, as well as satisfying the above stability criteria. Also, loadings which may impair the vessel's sea keeping ability should be avoided.

5. Damage Stability Calculations made for water with a density of 35.00 Cu.Ft. per ton.

6. An asterisk (*) following Required GM Values denotes that Required GM is based on requirement of two (2) inches Damaged GM after equilization measures have been taken.

7. The TCG and TCB Values indicated in "Description of Calculations" are projected onto the baseline and are not necessarily measured at the actual vertical location of G or B.

Inches 0 1 2 3

mm. 0 10 20 30 40 50 60 70 80

Form ED-SMB-3

DWG. NO. C7-1000 29-01-08

GENERAL NOTES

SHEET NO. 5

DESCRIPTION OF CALCULATIONS (CONT'D)

I. METHOD OF CALCULATION (CONT'D)

1) Cont'd

For Symmetrical flooding, TCB_{0° is zero.

2) $$\text{Required GM} = \text{"KM" Intact} - \frac{TCB_{1^\circ}}{Sin\ 1^\circ} + 0.17$$

For unsymmetrical flooding, the maximum allowable KG before damage to limit the heel to θ° is obtained as follows:

3) $$KG = \frac{TCB_\theta - (TCG \times COS\ \theta)}{Sin\ \theta}$$

and therefore,

4) Required GM = KM Intact - KG

The TCG at each intact draft is assumed to be zero.

For Symmetrical Flooding, only Formula 2 is used.

For Unsymmetrical Flooding, the Required GM is computed by using both Formula 4 and,

Required GM = KM Intact - "KM" after damage + 0.17

where,

"KM" After Damage is obtained from Formula 1.

DAMAGE ASSUMPTIONS

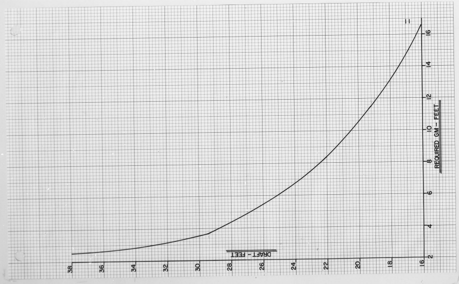
Case	Frames	Compartment	Condition
CASE 1	FRS. 44-52	Fuel Oil Tank CL	98% Full of Fuel Oil & Damaged
		Accommodations	Flooded
		Sewage Equipment Room	Flooded
		Tunnel Between Frs. 52-121 P	Flooded
		Stearing Gear Room	Flooded
CASE 2	FRS. 52-61	#1 Hold	Flooded
		#1 S W Ballast Tank CL	100% Full of Salt Water & Damaged
		Fwd Flume Tank CL	100% Full of Salt Water & Damaged
		Aft Flume Tank CL	100% Full of Salt Water & Damaged
		#1A & #1B DB Void Between Frs. 55-61	Empty and Damaged
		#1B Wing Void Between Frs. 58-61	Empty and Damaged
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 3	FRS 61-70	#2 Hold	Flooded
		#2 Wing SW Ballast Tank P	100% Full of Salt Water & Damaged
		#2 DB SW Ballast Tank P	100% Full of Salt Water & Damaged
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 4	FRS. 61-70	#2 Hold	Flooded
		#2A Wing SW Ballast Tank P	100% Full of Salt Water & Damaged
		#2 DB SW Ballast Tank P	100% Full of Salt Water & Damaged
		#2A Wing Trunk P	Empty and Damaged
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 5	FRS 70-76	#3 Hold	Flooded
		#2A Wing SW BAllast Tank P	100% Full of Salt Water & Damaged
		#2A Wing Trunk	Empty and Damaged
		#3 DB SW Ballast Tank P	100% Full of Salt Water & Damaged
		Tunnel Between Frs 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 6	FRS 70-76	#3 Hold	Flooded
		#3 Wing FO Tank P	98% Full of Fuel Oil & Damaged
		#3 DB SW Ballast Tank P	100% Full of Salt Water & Damaged
		#3 Wing FO OVFW Tank P	Empty and Damaged
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Room	Flooded

DAMAGE ASSUMPTIONS (CONT'D)

CASE 7	FRS. 76-85	#4 Hold	Flooded
		#3 Wing FO Tank P	98% Full of Fuel Oil & Damaged
		#4 DB SW Ballast Tank P	100% Full of Salt Water & Damaged
		#3 Wing Trunk	Empty and Damaged
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 8	FRS. 76-85	#4 Hold	Flooded
		#4 Wing SW BAllast Tank P	100% Full of Salt Water & Damaged
		#4 DB SW Ballast Tank P	100% Full of Salt Water & Damaged
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 9	Frs. 85-95	#5 Hold	Flooded
		Engine Room	Flooded
		Engine Room DB Void	Empty and Damaged
		Potable Water Tank	100% Full of Fresh Water & Damaged
		Distilled Water Tank	100% Full of Fresh Water & Damaged
		Diesel Oil Tank	98% Full of Diesel Oil & Damaged
		Distilled Water Trunk	Empty and Damaged
		Engineers Machine Shop	Flooded
		Fresh Water Cofferdams	Flooded
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 10	FRS. 95-101	#6 Hold	Flooded
		#6 Wing FO Tank P	98% Full of Fuel Oil & Damaged
		#6 DB Void	Empty and Damaged
		#6 Wing Trunk	Empty and Damaged
		#6 Wing FO OVFW	Empty and Damaged
		Shaft Alley	Flooded
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear	Flooded

DAMAGE ASSUMPTIONS

CASE 3A	FRS. 61-70	#2 Hold	Flooded
		#2 Wing SW Ballast Tank P	Empty & Damaged
		#2 DB SW Ballast Tank P	Empty & Damaged
		Tunnel Between Fr. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 4A	FRS. 61-70	#2 Hold	Flooded
		#2A Wing SW Ballast Tank P	Empty & Damaged
		#2 DB SW Ballast Tank P	Empty & Damaged
		#2A Wing Trunk P	Empty & Damaged
		Tunnel Between Fr. 52-121 P	Flooded
		Steering Gear Room	Flooded
CASE 8A	FRS 76-85	#4 Hold	Flooded
		#4 Wing SW BAllast Tank P	Empty & Damaged
		#4 DB SW Ballast Tank P	Empty & Damaged
		Tunnel Between Frs. 52-121 P	Flooded
		Steering Gear Rm.	Flooded



SUMMARY OF RESULTS

DAMAGE STABILITY CALCULATIONS

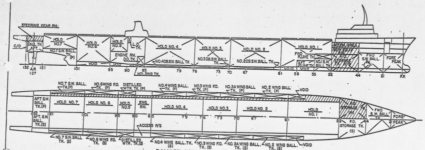
JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 1.CASE 1,DAMAGE FRS 44-52,ACCOM,FUEL OIL P,SEW EQ,
TUNNEL P,STG GR

SHIP BEFORE DAMAGE				SHIP AFTER DAMAGE													
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-48.9	-60.0	-75.0	
				-7.0	13.28	17.33	3.43	-0.45	0.00	0.12	-1.06	-2.27	-6.58	-7.63	-10.66	-15.86	0.5-16.0
				-15.0	13.53	15.85	3.00	-0.45	-0.06	0.00	-1.25	-2.50	-6.91	-7.98	-11.06	-16.31	0.0-15.0
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-41.2	-45.0	-60.0	-75.0	
				-7.0	20.31	22.69	1.59	-0.22	0.00	0.21	0.22	-0.05	-1.19	-1.66	-5.20	-9.91	3.4-29.0
				-15.0	20.74	21.46	0.80	-0.22	-0.10	0.00	-0.13	-0.46	-1.73	-2.24	-5.91	-10.71	0.0-15.0
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-36.4	-45.0	-60.0	-75.0	
				-7.0	24.95	26.35	0.91	-0.13	0.00	0.20	0.52	0.58	0.56	-0.20	-3.75	-8.20	12.6-42.8
				-14.4	25.33	25.36	0.17 *	-0.13	-0.09	0.01	0.19	0.20	0.11	-0.74	-4.41	-8.94	3.0-37.5
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-33.2	-45.0	-60.0	-75.0	
				-7.0	28.35	29.16	0.55	-0.08	0.00	0.18	0.56	0.80	0.96	0.14	-3.38	-7.65	17.1-45.6
				-9.3	28.44	28.91	0.24 *	-0.08	-0.04	0.10	0.43	0.64	0.78	-0.09	-3.66	-7.96	11.9-43.8
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-30.0	-45.0	-60.0	-75.0	
				-7.0	31.63	32.12	0.28	-0.04	0.00	0.13	0.55	0.89	0.89	-0.04	-3.38	-7.57	13.9-44.4
				-7.1	31.63	32.12	0.27 *	-0.04	-0.00	0.12	0.54	0.89	0.89	-0.04	-3.39	-7.58	13.8-44.3
35.00	51079	422.50	SYMM.					0.0	7.0	15.0	25.0	30.0	45.0	60.0	75.0		
				0.0	35.02	35.14	0.28	0.0	0.03	0.17	0.52	0.56	-0.95	-3.96	-7.82		6.7 35.6
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	23.3	25.0	30.0	45.0	60.0	75.0	
				2.3	38.64	37.91	0.42 *	-0.01	0.03	0.20	0.36	0.39	0.14	-1.29	-4.19	-7.74	5.4 31.5



DAMAGE CASE NO. 1

(FOR DETAILED DESCRIPTION SEE PAGE 8)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	13.53	15.85	3.00
Unsymm	15.0	20.74	21.46	0.80
Unsymm	14.4	25.33	25.36	0.17
Unsymm	9.3	28.44	28.91	0.24
Unsymm	7.1	31.63	32.12	0.27
Symm	0.0	35.02	35.14	0.28
Unsymm	2.3	38.64	37.91	0.42

REMARKS:

DAMAGE STABILITY CALCULATIONS

JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 1,CASE 1,DAMAGE FRS 44-52,ACCOM,FUEL OIL P,SEW EQ,
TUNNEL P,STG GR

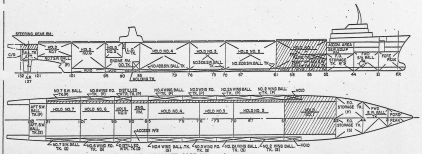
SHIP BEFORE DAMAGE				SHIP AFTER DAMAGE													
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-48.9	-60.0	-75.0	
				-1.2	13.45	17.51	22.13	-0.45	2.10	4.57	6.21	6.33	5.58	5.34	4.24	0.76	320.5-78.3
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-41.2	-45.0	-60.0	-75.0	
				-1.2	20.45	22.84	11.16	-0.22	1.05	2.45	3.87	4.27	4.50	4.46	2.29	-1.56	195.9-68.9
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-36.4	-45.0	-60.0	-75.0	
				-1.0	25.07	26.47	7.90	-0.13	0.78	1.85	3.21	3.76	4.34	4.30	1.76	-2.06	170.1-66.9
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-33.2	-45.0	-60.0	-75.0	
				-0.8	28.48	29.29	6.32	-0.08	0.65	1.55	2.80	3.45	3.86	3.89	1.21	-2.53	146.8-64.9
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-30.0	-45.0	-60.0	-75.0	
				-0.4	31.75	32.24	5.38	-0.04	0.58	1.35	2.55	3.26	3.26	3.31	0.72	-3.00	124.3-62.9
35.00	51079	422.50	SYMM.					0.0	7.0	15.0	25.0	30.0	45.0	60.0	75.0		
				0.0	35.02	35.14	4.58	0.0	0.52	1.21	2.21	2.56	1.88	-0.49	-3.96		82.3 56.9
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	23.3	25.0	30.0	45.0	60.0	75.0	
				0.2	38.65	37.92	3.98	-0.01	0.45	1.09	1.72	1.84	1.86	1.14	-1.21	-4.42	58.3 52.3

NOTES:

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00



DAMAGE CASE NO. 2

(FOR DETAILED DESCRIPTION SEE PAGE 8)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	7.0	12.91	17.55	3.18
Unsymm	15.0	24.32	20.21	2.59
Unsymm	15.0	30.65	23.58	2.01
Unsymm	15.0	34.92	26.44	1.67
Unsymm	15.0	38.92	29.47	1.37
Unsymm	15.0	42.80	32.54	1.00
Unsymm	15.0	46.72	35.55	0.79

REMARKS:

JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 2,CASE 2,DAMAGE FRS 52-61,1 HOLD,1 BAL CL,FWD FLUME,AFT FLUME,1A&1B DB VOID,1B WING VOID,TUNNEL P,STG GR

SHIP BEFORE DAMAGE			SHIP AFTER DAMAGE															
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	45.0	48.1	60.0	75.0		
				0.2	12.76	17.96	24.60	-0.06	2.40	4.69	5.99	5.89	4.44	4.09	2.07	-2.15	254.6	67.4
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	38.4	45.0	60.0	75.0		
				0.9	23.39	21.81	11.74	-0.14	0.95	2.13	3.29	3.60	3.66	3.29	0.41	-3.69	141.0	61.5
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	32.9	45.0	60.0	75.0		
				1.6	29.72	24.95	8.01	-0.17	0.57	1.44	2.60	3.13	3.38	3.09	0.17	-3.71	117.2	60.7
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	29.2	30.0	45.0	60.0	75.0		
				2.3	34.08	27.64	6.42	-0.18	0.39	1.13	2.28	2.76	2.85	2.61	-0.17	-3.94	96.3	59.1
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	25.0	25.7	30.0	45.0	60.0	75.0		
				2.7	38.27	30.45	5.75	-0.20	0.31	0.98	2.06	2.14	2.58	2.10	-0.52	-4.22	80.4	57.0
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	22.2	25.0	30.0	45.0	60.0	75.0		
				3.1	42.29	33.28	5.18	-0.21	0.26	0.88	1.53	1.79	2.08	1.42	-1.11	-4.65	60.4	53.4
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	18.6	25.0	30.0	45.0	60.0	75.0		
				3.3	46.29	36.09	4.96	-0.22	0.24	0.82	1.09	1.49	1.51	0.70	-1.74	-4.98	42.0	49.3

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

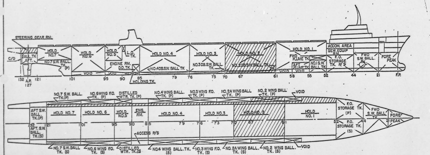
JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 2.CASE 2,DAMAGE FRS 52-61,1 HOLD,1 BAL CL,FWD FLUME,AFT FLUME,1A&1B DB VOID,1B WING VOID,TUNNEL P,STG GR

SHIP BEFORE DAMAGE			SHIP AFTER DAMAGE															
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	45.0	48.1	60.0	75.0		
				7.0	12.91	17.55	3.18	-0.06	0.00	-0.41	-2.34	-3.96	-9.49	-10.57	-14.99	-21.17	0.0	7.0
NO REQ. GM EXISTS THAT WILL LIMIT THE HEEL TO 15.0 DEGREES																		
				1.4	12.77	17.93	4.51	-0.06	0.19	0.00	-1.67	-3.17	-8.38	-9.39	-13.62	-19.65	1.3	15.0
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	38.4	45.0	60.0	75.0		
				7.0	23.58	21.50	2.97	-0.14	0.00	0.11	-0.01	-0.30	-1.19	-2.22	-6.34	-11.22	1.0	24.5
				15.0	24.32	20.21	2.59	-0.14	-0.05	0.00	-0.18	-0.51	-1.45	-2.52	-6.71	-11.62	0.0	15.0
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	32.9	45.0	60.0	75.0		
				7.0	29.66	24.88	2.85	-0.17	0.00	0.24	0.64	0.81	0.86	-0.20	-3.85	-8.20	15.6	42.8
				15.0	30.65	23.58	2.01	-0.17	-0.11	0.00	0.25	0.35	0.36	-0.84	-4.65	-9.08	4.5	36.5
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	29.2	30.0	45.0	60.0	75.0		
				7.0	34.03	27.59	2.76	-0.18	0.00	0.31	0.92	1.19	1.25	0.35	-2.94	-7.04	25.0	46.6
				15.0	34.92	26.44	1.67	-0.18	-0.14	0.00	0.42	0.62	0.66	-0.49	-3.96	-8.18	7.7	36.6
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	25.0	25.7	30.0	45.0	60.0	75.0		
				7.0	38.22	30.40	2.51	-0.20	0.00	0.32	0.98	1.03	1.29	0.29	-2.74	-6.70	25.5	46.4
				15.0	38.92	29.47	1.37	-0.20	-0.15	0.00	0.46	0.49	0.68	-0.58	-3.80	-7.88	7.9	36.1
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	22.2	25.0	30.0	45.0	60.0	75.0		
				7.0	42.26	33.25	2.19	-0.21	0.00	0.33	0.72	0.89	1.01	-0.09	-2.96	-6.72	19.1	43.8
				15.0	42.80	32.54	1.00	-0.21	-0.15	0.00	0.25	0.36	0.38	-0.98	-4.05	-7.94	4.4	34.2
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	18.6	25.0	30.0	45.0	60.0	75.0		
				7.0	46.29	36.09	1.91	-0.22	0.00	0.31	0.46	0.65	0.52	-0.71	-3.47	-6.91	10.7	36.3
				15.0	46.72	35.55	0.79	-0.22	-0.14	0.00	0.08	0.15	-0.08	-1.55	-4.50	-8.06	1.1	28.3



DAMAGE CASE NO. 3

(FOR DETAILED DESCRIPTION SEE PAGE 8)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	16.29	14.50	15.26
Unsymm	15.0	24.80	20.38	7.81
Unsymm	15.0	30.01	24.45	5.11
Unsymm	15.0	33.72	27.63	3.65
Unsymm	15.0	37.22	30.96	2.53
Unsymm	15.0	40.58	34.34	1.53
Unsymm	15.0	44.23	37.44	0.65

REMARKS: ____________

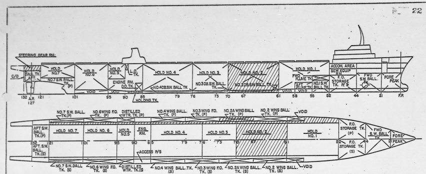
JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 3,CASE 3,DAMAGE FRS 61-70,2 HOLD,2 WING P,2 DB P, TUNNEL P,STG GR

SHIP BEFORE DAMAGE			SHIP AFTER DAMAGE															
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.9	-60.0	-75.0		
				-7.0	16.42	15.87	25.67	-3.01	0.00	3.02	5.50	6.15	7.18	7.37	7.88	6.18	448.8	-90.0
				-15.0	16.29	14.50	15.26	-3.01	-1.42	0.00	0.56	0.31	-1.08	-1.30	-2.24	-5.11	5.5	-33.3
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.4	-45.0	-60.0	-75.0		
				-7.0	24.59	21.57	14.50	-1.64	0.00	1.87	3.92	4.69	5.76	6.20	5.29	2.53	302.9	-88.8
				-15.0	24.80	20.38	7.81	-1.64	-0.88	0.00	0.87	1.08	1.18	1.10	-0.96	-4.44	30.6	-53.0
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-34.3	-45.0	-60.0	-75.0		
				-7.0	29.83	25.47	10.12	-1.14	0.00	1.38	3.19	4.02	4.68	5.37	3.61	0.52	217.9	-77.5
				-15.0	30.01	24.45	5.11	-1.14	-0.65	0.00	0.94	1.36	1.69	1.61	-0.99	-4.62	42.1	-54.3
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-30.6	-45.0	-60.0	-75.0		
				-7.0	33.60	28.50	7.67	-0.87	0.00	1.10	2.70	3.55	3.65	4.36	2.19	-1.02	159.2	-70.2
				-15.0	33.72	27.63	3.65	-0.87	-0.52	0.00	0.91	1.43	1.49	1.37	-1.47	-5.11	36.8	-52.2
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-27.1	-30.0	-45.0	-60.0	-75.0		
				-7.0	37.27	31.61	5.71	-0.67	0.00	0.86	2.25	2.61	3.07	3.09	0.76	-2.60	108.7	-63.4
				-15.0	37.22	30.96	2.53	-0.67	-0.41	0.00	0.85	1.09	1.40	0.74	-2.12	-5.81	27.4	-48.9
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-23.7	-25.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	40.93	34.69	4.08	-0.51	0.00	0.69	1.72	1.90	2.42	1.78	-0.70	-4.08	67.4	-55.8
				-15.0	40.58	34.34	1.53	-0.51	-0.32	0.00	0.65	0.78	1.09	-0.10	-2.99	-6.64	16.0	-43.8
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-20.0	-25.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	44.54	37.75	2.70	-0.38	0.00	0.55	1.02	1.45	1.50	0.38	-2.23	-5.46	34.1	-47.2
				-15.0	44.23	37.44	0.65	-0.38	-0.26	0.00	0.29	0.55	0.44	-1.12	-4.07	-7.51	6.2	-34.2



DAMAGE CASE NO. 4
(FOR DETAILED DESCRIPTION SEE PAGE 8)

CONDITION OF SHIP PRIOR TO DAMAGE

INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE

TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	17.37	13.52	16.15
Unsymm	15.0	25.61	19.66	8.36
Unsymm	15.0	30.66	23.92	5.44
Unsymm	15.0	34.26	27.21	3.85
Unsymm	15.0	37.70	30.60	2.63
Unsymm	15.0	40.86	34.15	1.55
Unsymm	15.0	44.46	37.29	0.63

REMARKS: ______

JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 3,CASE 3,DAMAGE FRS 61-70,2 HOLD,2 WING P,2 DB P,
TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	SHIP AFTER DAMAGE HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM	-10.1	16.37	15.34	19.99	0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.9	-60.0	-75.0		
								-3.01	-0.81	1.30	2.68	2.81	2.46	2.41	2.10	-0.27	124.5	-73.3
22.00	27903	401.62	UNSYMM	-11.0	24.70	20.97	9.71	0.0	-7.0	-15.0	-25.0	-30.0	-39.4	-45.0	-60.0	-75.0		
								-1.64	-0.60	0.59	1.83	2.22	2.63	2.72	1.02	-2.23	91.6	-64.7
26.00	34565	407.78	UNSYMM	-10.4	29.91	25.04	7.03	0.0	-7.0	-15.0	-25.0	-30.0	-34.3	-45.0	-60.0	-75.0		
								-1.14	-0.39	0.54	1.83	2.41	2.87	3.09	0.83	-2.59	97.9	-63.6
29.00	39860	412.83	UNSYMM	-9.5	33.64	28.24	5.88	0.0	-7.0	-15.0	-25.0	-30.0	-30.6	-45.0	-60.0	-75.0		
								-0.87	-0.25	0.56	1.83	2.52	2.60	2.91	0.42	-3.00	90.9	-61.8
32.00	45401	418.04	UNSYMM	-8.1	37.26	31.52	5.34	0.0	-7.0	-15.0	-25.0	-27.1	-30.0	-45.0	-60.0	-75.0		
								-0.67	-0.10	0.64	1.90	2.22	2.65	2.50	0.03	-3.41	83.8	-60.1
35.00	51079	422.50	UNSYMM	-6.8	40.93	34.70	4.90	0.0	-7.0	-15.0	-23.7	-25.0	-30.0	-45.0	-60.0	-75.0		
								-0.51	0.02	0.72	1.77	1.95	2.48	1.87	-0.59	-3.95	70.5	-56.4
38.00	56840	426.06	UNSYMM	-5.1	44.58	37.80	4.79	0.0	-7.0	-15.0	-20.0	-25.0	-30.0	-45.0	-60.0	-75.0		
								-0.38	0.14	0.85	1.41	1.93	2.07	1.18	-1.24	-4.36	56.8	-52.3

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

DATE 06/29/79
JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 4.CASE 4,DAMAGE FRS 61-70,2 HOLD,2A WING P,2 DB P,2A
WING TRUNK,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	SHIP AFTER DAMAGE HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.5	-60.0	-75.0		
				-7.0	17.54	14.84	26.95	-3.06	0.00	3.14	5.80	6.55	7.85	8.05	8.79	7.38	497.8	-90.0
				-15.0	17.37	13.52	16.15	-3.06	-1.48	0.00	0.67	0.48	-0.74	-0.91	-1.73	-4.36	7.6	-35.9
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.0	-45.0	-60.0	-75.0		
				-7.0	25.27	21.00	14.93	-1.63	0.00	1.84	3.93	4.73	5.83	6.33	5.50	2.84	314.5	-90.0
				-15.0	25.61	19.66	8.36	-1.63	-0.36	0.00	0.93	1.18	1.36	1.32	-0.65	-4.01	36.0	-55.1
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-34.0	-45.0	-60.0	-75.0		
				-7.0	30.36	25.07	10.28	-1.12	0.00	1.33	3.12	3.96	4.59	5.34	3.65	0.58	217.0	-77.8
				-15.0	30.66	23.92	5.44	-1.12	-0.63	0.00	0.94	1.39	1.71	1.70	-0.81	-4.39	44.2	-55.2
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-30.3	-45.0	-60.0	-75.0		
				-7.0	34.03	28.21	7.69	-0.85	0.00	1.05	2.59	3.44	3.50	4.27	2.13	-1.08	154.2	-70.0
				-15.0	34.26	27.21	3.85	-0.85	-0.49	0.00	0.87	1.42	1.46	1.41	-1.38	-4.99	36.9	-52.6
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-26.9	-30.0	-45.0	-60.0	-75.0		
				-7.0	37.62	31.38	5.65	-0.64	0.00	0.82	2.14	2.44	2.93	2.97	0.63	-2.72	102.9	-62.8
				-15.0	37.70	30.60	2.63	-0.64	-0.39	0.00	0.81	1.01	1.35	0.74	-2.11	-5.77	26.5	-48.9
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-23.5	-25.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	41.22	34.51	3.95	-0.48	0.00	0.65	1.59	1.79	2.27	1.63	-0.86	-4.25	62.1	-54.8
				-15.0	40.86	34.15	1.55	-0.48	-0.30	0.00	0.60	0.74	1.02	-0.14	-3.02	-6.66	14.7	-43.2
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-19.9	-25.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	44.78	37.61	2.54	-0.35	0.00	0.51	0.94	1.35	1.37	0.22	-2.40	-5.65	30.3	-46.3
				-15.0	44.46	37.29	0.63	-0.35	-0.24	0.00	0.27	0.51	0.38	-1.18	-4.12	-7.56	5.6	-33.7

DATE 06/29/79
JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 4.CASE 4,DAMAGE FRS 61-70,2 HOLD,2A WING P,2 DB P,2A
WING TRUNK,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	SHIP AFTER DAMAGE HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.5	-60.0	-75.0		
				-10.9	17.46	14.19	19.15	-3.06	-0.99	1.04	2.37	2.48	2.10	2.05	1.74	-0.48	104.8	-71.8
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.0	-45.0	-60.0	-75.0		
				-11.8	25.48	20.20	9.32	-1.63	-0.66	0.44	1.64	2.03	2.42	2.51	0.82	-2.38	81.7	-63.8
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-34.0	-45.0	-60.0	-75.0		
				-10.8	30.50	24.52	6.78	-1.12	-0.41	0.45	1.68	2.26	2.69	2.94	0.71	-2.70	90.9	-63.1
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-30.3	-45.0	-60.0	-75.0		
				-9.7	34.11	27.88	5.73	-0.85	-0.25	0.51	1.71	2.40	2.45	2.80	0.33	-3.09	85.7	-61.4
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-26.9	-30.0	-45.0	-60.0	-75.0		
				-8.1	37.63	31.28	5.25	-0.64	-0.09	0.62	1.82	2.10	2.54	2.43	-0.04	-3.46	80.4	-59.8
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-23.5	-25.0	-30.0	-45.0	-60.0	-75.0		
				-6.6	41.23	34.52	4.87	-0.48	0.03	0.71	1.70	1.90	2.40	1.81	-0.64	-3.99	68.4	-56.1
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-19.9	-25.0	-30.0	-45.0	-60.0	-75.0		
				-4.8	44.83	37.67	4.78	-0.35	0.16	0.85	1.39	1.90	2.02	1.14	-1.27	-4.39	55.7	-52.1

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

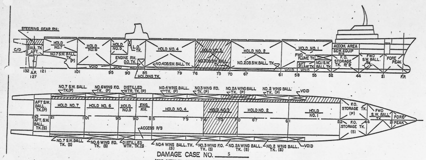
DATE 06/29/79 DAMAGE STABILITY CALCULATIONS PAGE 26
JOB NO. C7-1000
DRWG. NO. WATERMAN LASH
LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 5.CASE 5,DAMAGE FRS 70-76,3 HOLD,2A WING P,2A WING TRUNK
3 DB P,TUNNEL P,STG GR

SHIP BEFORE DAMAGE — SHIP AFTER DAMAGE

DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	390.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-48.0	-60.0	-75.0		
				-7.0	15.81	15.58	26.39	-3.06	0.00	3.13	5.77	6.48	7.63	7.84	8.43	6.99	482.3	-90.0
				-15.0	15.95	13.98	15.52	-3.06	-1.47	0.00	0.67	0.44	-0.91	-1.14	-2.03	-4.68	7.2	-34.9
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-40.4	-45.0	-60.0	-75.0		
				-7.0	22.14	22.44	14.62	-1.66	0.00	1.85	3.90	4.67	5.82	6.20	5.50	2.82	311.2	-90.0
				-15.0	22.54	21.05	7.96	-1.66	-0.87	0.00	0.88	1.10	1.19	1.16	-0.68	-4.07	32.2	-54.5
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.6	-45.0	-60.0	-75.0		
				-7.0	26.78	26.53	10.18	-1.15	0.00	1.35	3.09	3.89	4.74	5.36	3.76	0.77	220.6	-78.9
				-15.0	27.14	25.34	5.24	-1.15	-0.64	0.00	0.88	1.28	1.70	1.66	-0.76	-4.27	42.5	-55.3
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.4	-45.0	-60.0	-75.0		
				-7.0	30.20	29.62	7.78	-0.88	0.00	1.07	2.59	3.40	3.80	4.42	2.37	-0.72	162.7	-71.5
				-15.0	30.47	28.62	3.83	-0.88	-0.51	0.00	0.84	1.33	1.58	1.49	-1.22	-4.73	38.6	-53.2
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-29.2	-30.0	-45.0	-60.0	-75.0		
				-7.0	33.56	32.78	5.95	-0.68	0.00	0.85	2.18	2.84	2.98	3.25	1.05	-2.21	112.9	-64.8
				-15.0	33.62	32.06	2.79	-0.68	-0.40	0.00	0.79	1.23	1.33	0.92	-1.80	-5.40	28.4	-50.1
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-26.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	36.89	35.95	4.47	-0.52	0.00	0.69	1.86	2.00	2.48	2.04	-0.28	-3.58	73.7	-58.2
				-15.0	36.56	35.62	1.90	-0.52	-0.33	0.00	0.73	0.83	1.14	0.15	-2.59	-6.16	18.2	-45.8
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-22.7	-25.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	40.20	39.11	3.23	-0.39	0.00	0.55	1.30	1.53	1.69	0.75	-1.69	-4.86	40.6	-49.6
				-15.0	39.91	38.82	1.15	-0.39	-0.26	0.00	0.47	0.63	0.62	-0.77	-3.55	-6.93	8.2	-36.7

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DAMAGE CASE NO. 5
(FOR DETAILED DESCRIPTION SEE PAGE 8)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	15.95	13.98	15.52
Unsymm	15.0	22.54	21.05	7.96
Unsymm	15.0	27.14	25.34	5.24
Unsymm	15.0	30.47	28.62	3.83
Unsymm	15.0	33.62	32.06	2.79
Unsymm	15.0	36.56	35.62	1.90
Unsymm	15.0	39.91	38.82	1.15

REMARKS: ____________________

DATE 06/29/79 DAMAGE STABILITY CALCULATIONS PAGE 27
JOB NO. C7-1000
DRWG. NO. WATERMAN LASH
LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 5.CASE 5,DAMAGE FRS 70-76,3 HOLD,2A WING P,2A WING TRUNK
3 DB P,TUNNEL P,STG GR

SHIP BEFORE DAMAGE — SHIP AFTER DAMAGE

DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	390.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-48.0	-60.0	-75.0		
				-10.4	15.87	14.89	19.43	-3.06	-0.90	1.21	2.64	2.77	2.39	2.33	2.01	-0.17	121.4	-73.9
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-40.4	-45.0	-60.0	-75.0		
				-11.2	22.35	21.70	9.70	-1.66	-0.61	0.55	1.78	2.16	2.56	2.65	1.15	-2.03	90.7	-65.4
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.6	-45.0	-60.0	-75.0		
				-10.5	26.94	26.01	7.01	-1.15	-0.40	0.51	1.71	2.26	2.84	3.05	0.93	-2.38	95.8	-64.2
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.4	-45.0	-60.0	-75.0		
				-9.7	30.29	29.28	5.80	-0.88	-0.26	0.51	1.68	2.32	2.65	2.89	0.50	-2.81	89.3	-62.3
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-29.2	-30.0	-45.0	-60.0	-75.0		
				-8.5	33.57	32.64	5.08	-0.68	-0.13	0.57	1.72	2.31	2.43	2.48	0.11	-3.26	80.0	-60.5
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-26.0	-30.0	-45.0	-60.0	-75.0		
				-7.4	36.87	35.93	4.48	-0.52	-0.03	0.62	1.74	1.88	2.34	1.84	-0.52	-3.85	66.6	-56.7
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-22.7	-25.0	-30.0	-45.0	-60.0	-75.0		
				-5.9	40.22	39.13	4.22	-0.39	0.07	0.71	1.53	1.78	1.99	1.17	-1.17	-4.29	53.0	-52.5

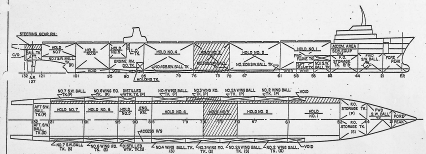
NOTES:

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

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DAMAGE CASE NO. 6
(FOR DETAILED DESCRIPTION SEE PAGE 8)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	16.93	13.15	15.15
Unsymm	15.0	23.42	20.38	7.75
Unsymm	15.0	27.83	24.86	5.04
Unsymm	15.0	31.06	28.23	3.62
Unsymm	15.0	34.14	31.74	2.57
Unsymm	15.0	37.20	35.21	1.68
Unsymm	15.0	40.15	38.70	0.93

REMARKS: ____________________

RED. 6X DATE 7-81 MA. NO. H-203 BLDR. NO. 29-01-08 FRAME NO. 8

DATE 06/29/79
JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 6.CASE 6,DAMAGE FRS 70-76,3 HOLD,3 WING P,3 DB P,3 WING OVFW,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. RANGE OF STAB STAB
16.00	18656	390.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.6	-60.0	-75.0	
				-9.9	16.90	14.12	18.96	-2.85	-0.76	1.31	2.67	2.80	2.37	2.32	1.96	-0.15	121.9-73.9
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-40.0	-45.0	-60.0	-75.0	
				-10.7	23.23	21.12	9.46	-1.53	-0.52	0.60	1.80	2.18	2.57	2.65	1.14	-2.04	91.6-65.4
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.3	-45.0	-60.0	-75.0	
				-9.9	27.49	25.72	6.87	-1.05	-0.31	0.56	1.74	2.29	2.83	3.08	0.95	-2.39	97.5-64.3
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.0	-45.0	-60.0	-75.0	
				-9.0	30.73	29.09	5.70	-0.80	-0.18	0.57	1.70	2.36	2.64	2.92	0.53	-2.80	90.9-62.4
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-28.8	-30.0	-45.0	-60.0	-75.0	
				-7.7	33.93	32.52	5.09	-0.60	-0.06	0.63	1.76	2.30	2.47	2.52	0.14	-3.25	82.3-60.6
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-25.7	-30.0	-45.0	-60.0	-75.0	
				-6.5	37.20	35.82	4.51	-0.45	0.03	0.68	1.79	1.89	2.38	1.89	-0.48	-3.82	69.0-57.0
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-22.6	-25.0	-30.0	-45.0	-60.0	-75.0	
				-5.1	40.48	39.04	4.26	-0.34	0.13	0.77	1.57	1.83	2.04	1.22	-1.13	-4.26	55.5-52.8

NOTES:

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

DATE 06/29/79
JOB NO. C7-1000
DRWG. NO.

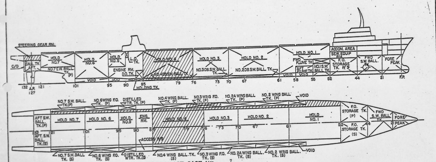
DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 6.CASE 6,DAMAGE FRS 70-76,3 HOLD,3 WING P,3 DB P,3 WING OVFW,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. RANGE OF STAB STAB
16.00	18656	390.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.6	-60.0	-75.0	
				-7.0	16.88	14.68	25.34	-2.85	0.00	2.92	5.30	5.90	6.76	6.90	7.35	5.85	424.7-90.0
				-15.0	16.93	13.15	15.15	-2.85	-1.37	0.00	0.53	0.27	-1.21	-1.42	-2.42	-5.03	5.0-32.7
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-40.0	-45.0	-60.0	-75.0	
				-7.0	23.06	21.75	13.89	-1.53	0.00	1.70	3.59	4.30	5.29	5.64	4.80	2.05	269.3-86.2
				-15.0	23.42	20.38	7.75	-1.53	-0.80	0.00	0.82	1.02	1.08	1.01	-0.88	-4.28	28.4-53.0
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.3	-45.0	-60.0	-75.0	
				-7.0	27.30	26.20	9.50	-1.05	0.00	1.22	2.82	3.56	4.30	4.87	3.15	0.07	190.7-75.3
				-15.0	27.83	24.86	5.04	-1.05	-0.57	0.00	0.83	1.21	1.58	1.55	-0.92	-4.48	39.1-54.4
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.0	-45.0	-60.0	-75.0	
				-7.0	30.62	29.37	7.16	-0.80	0.00	0.96	2.34	3.11	3.44	3.99	1.84	-1.34	140.6-68.7
				-15.0	31.06	28.23	3.62	-0.80	-0.45	0.00	0.77	1.25	1.47	1.36	-1.37	-4.93	35.1-52.5
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-28.8	-30.0	-45.0	-60.0	-75.0	
				-7.0	33.91	32.59	5.38	-0.60	0.00	0.76	1.97	2.54	2.72	2.87	0.57	-2.77	96.8-62.6
				-15.0	34.14	31.74	2.57	-0.60	-0.36	0.00	0.73	1.13	1.26	0.80	-1.96	-5.60	25.8-49.3
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-25.7	-30.0	-45.0	-60.0	-75.0	
				-7.0	37.18	35.80	3.94	-0.45	0.00	0.61	1.68	1.77	2.24	1.70	-0.71	-4.03	62.3-55.6
				-15.0	37.20	35.21	1.68	-0.45	-0.29	0.00	0.69	0.76	1.07	0.05	-2.74	-6.35	16.3-45.2
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-22.6	-25.0	-30.0	-45.0	-60.0	-75.0	
				-7.0	40.44	39.00	2.77	-0.34	0.00	0.49	1.16	1.39	1.51	0.47	-2.05	-5.28	34.0-47.8
				-15.0	40.15	38.70	0.93	-0.34	-0.23	0.00	0.43	0.58	0.55	-0.88	-3.70	-7.12	7.3-35.8



DAMAGE CASE NO. 7

(FOR DETAILED DESCRIPTION SEE PAGE 9)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	15.59	15.15	14.99
Unsymm	15.0	22.10	22.63	7.10
Unsymm	15.0	26.56	27.16	4.31
Unsymm	15.0	29.77	30.63	2.94
Unsymm	15.0	32.81	34.29	1.96
Unsymm	15.0	35.83	37.92	1.13
Unsymm	15.0	38.83	41.55	0.47

REMARKS:

DATE 06/28/79
JOB NO. C7-1000
DRWG. NO.

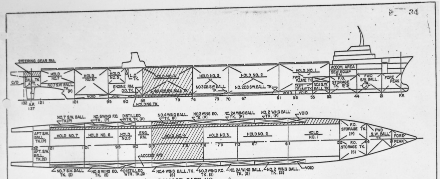
DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 7.CASE 7,DAMAGE FRS 76-85,4 HOLD,3 WING P,4 DB P,3 WING TRUNK,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. RANGE OF STAB STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.8	-60.0	-75.0	
				-7.0	15.29	17.02	24.64	-2.84	0.00	2.79	4.95	5.41	6.02	6.15	6.45	4.81	375.9-90.0
				-15.0	15.59	15.15	14.99	-2.84	-1.32	0.00	0.39	0.02	-1.61	-1.84	-2.89	-5.62	3.0-30.2
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-40.1	-45.0	-60.0	-75.0	
				-7.0	21.71	24.06	13.02	-1.50	0.00	1.65	3.37	3.95	4.73	4.99	3.92	1.01	224.0-80.2
				-15.0	22.10	22.63	7.10	-1.50	-0.78	0.00	0.63	0.76	0.63	0.48	-1.60	-5.14	17.6-48.5
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.4	-45.0	-60.0	-75.0	
				-7.0	26.23	28.34	8.66	-1.03	0.00	1.19	2.68	3.34	4.01	4.30	2.27	-0.92	160.2-70.7
				-15.0	26.56	27.16	4.31	-1.03	-0.56	0.00	0.73	1.04	1.34	1.04	-1.73	-5.38	28.8-50.7
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.2	-45.0	-60.0	-75.0	
				-7.0	29.40	31.69	6.34	-0.78	0.00	0.93	2.22	2.95	3.27	3.43	0.99	-2.34	117.4-64.4
				-15.0	29.77	30.63	2.94	-0.78	-0.44	0.00	0.71	1.16	1.37	0.90	-2.11	-5.79	27.5-49.5
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-28.9	-30.0	-45.0	-60.0	-75.0	
				-7.0	32.69	35.02	4.70	-0.58	0.00	0.74	1.92	2.48	2.64	2.33	-0.17	-3.66	81.1-59.0
				-15.0	32.81	34.29	1.96	-0.58	-0.35	0.00	0.71	1.09	1.20	0.30	-2.65	-6.42	19.9-46.5
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-25.0	-30.0	-45.0	-60.0	-75.0	
				-7.0	35.90	38.42	3.34	-0.43	0.00	0.59	1.64	1.64	2.07	1.18	-1.43	-4.86	51.3-51.8
				-15.0	35.83	37.92	1.13	-0.43	-0.28	0.00	0.67	0.67	0.92	-0.44	-3.42	-7.08	12.0-40.1
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-21.0	-25.0	-30.0	-45.0	-60.0	-75.0	
				-7.0	39.09	41.81	2.18	-0.31	0.00	0.46	0.94	1.23	1.16	-0.15	-2.83	-6.08	24.1-43.3
				-15.0	38.83	41.55	0.47	-0.31	-0.22	0.00	0.31	0.48	0.28	-1.40	-4.36	-7.78	4.8-32.5



DAMAGE CASE NO. 8

(FOR DETAILED DESCRIPTION SEE PAGE 9)

CONDITION OF SHIP PRIOR TO DAMAGE

INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE

TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	16.69	13.85	16.53
Unsymm	15.0	22.87	21.79	8.07
Unsymm	15.0	27.14	26.52	5.11
Unsymm	15.0	30.26	30.08	3.61
Unsymm	15.0	33.21	33.82	2.52
Unsymm	15.0	36.17	37.52	1.61
Unsymm	15.0	38.95	41.31	0.88

REMARKS:

DATE 06/28/79
JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 7.CASE 7,DAMAGE FRS 76-85,4 HOLD,3 WING P,4 DB P,3 WING TRUNK,TUNNEL P,STG GR

SHIP BEFORE DAMAGE / SHIP AFTER DAMAGE

DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.8	-60.0	-75.0	
				-9.6	15.39	16.40	20.08	-2.84	-0.67	1.37	2.62	2.66	2.13	2.08	1.68	-0.51	111.3-71.5
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-40.1	-45.0	-60.0	-75.0	
				-9.7	21.84	23.58	10.52	-1.50	-0.41	0.79	1.97	2.29	2.59	2.64	1.04	-2.20	94.0-64.8
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.4	-45.0	-60.0	-75.0	
				-8.7	26.30	28.09	7.87	-1.03	-0.20	0.76	1.97	2.51	3.04	3.13	0.82	-2.53	103.0-63.7
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.2	-45.0	-60.0	-75.0	
				-7.8	29.44	31.58	6.62	-0.78	-0.08	0.76	1.95	2.62	2.92	2.96	0.42	-2.97	97.2-61.9
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-28.9	-30.0	-45.0	-60.0	-75.0	
				-6.7	32.70	35.03	5.74	-0.58	0.03	0.80	2.01	2.58	2.74	2.48	0.01	-3.45	87.1-60.1
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-25.0	-30.0	-45.0	-60.0	-75.0	
				-5.6	35.93	38.45	5.06	-0.43	0.11	0.83	2.02	2.02	2.52	1.81	-0.65	-4.00	71.9-56.0
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-21.0	-25.0	-30.0	-45.0	-60.0	-75.0	
				-4.2	39.15	41.87	4.77	-0.31	0.20	0.89	1.54	1.94	2.00	1.04	-1.37	-4.45	55.0-51.5

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 8.CASE 8,DAMAGE FRS 76-85,4 HOLD,4 WING P,4 DB P, TUNNEL P,STG GR

SHIP BEFORE DAMAGE / SHIP AFTER DAMAGE

DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.5	-60.0	-75.0	
				-7.0	16.31	15.82	27.49	-3.22	0.00	3.20	5.85	6.57	7.88	8.14	8.91	7.82	508.2-90.0
				-15.0	16.69	13.85	16.53	-3.22	-1.50	0.00	0.64	0.40	-0.85	-0.97	-1.78	-4.10	6.7-34.8
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.8	-45.0	-60.0	-75.0	
				-7.0	22.37	23.32	14.98	-1.75	0.00	1.93	3.99	4.73	5.85	6.25	5.59	3.00	318.1-90.0
				-15.0	22.87	21.79	8.07	-1.75	-0.91	0.00	0.83	1.00	1.06	0.96	-0.89	-4.22	27.8-52.8
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.1	-45.0	-60.0	-75.0	
				-7.0	26.69	27.81	10.23	-1.22	0.00	1.41	3.18	3.97	4.74	5.32	3.63	0.64	218.6-78.2
				-15.0	27.14	26.52	5.11	-1.22	-0.67	0.00	0.87	1.24	1.60	1.46	-1.10	-4.63	38.3-53.6
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.0	-45.0	-60.0	-75.0	
				-7.0	29.96	31.11	7.71	-0.94	0.00	1.12	2.67	3.50	3.84	4.33	2.17	-0.97	159.4-70.4
				-15.0	30.26	30.08	3.61	-0.94	-0.53	0.00	0.84	1.34	1.55	1.27	-1.58	-5.15	35.1-51.7
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-28.8	-30.0	-45.0	-60.0	-75.0	
				-7.0	32.92	34.70	5.82	-0.72	0.00	0.89	2.28	2.89	3.09	3.09	0.79	-2.54	109.7-63.6
				-15.0	33.21	33.82	2.52	-0.72	-0.42	0.00	0.82	1.22	1.37	0.64	-2.20	-5.88	25.7-48.4
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-25.4	-30.0	-45.0	-60.0	-75.0	
				-7.0	36.08	38.14	4.32	-0.55	0.00	0.73	1.95	2.01	2.50	1.85	-0.57	-3.69	70.8-56.5
				-15.0	36.17	37.52	1.61	-0.55	-0.34	0.00	0.76	0.80	1.09	-0.14	-3.01	-6.62	15.7-43.3
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-21.2	-25.0	-30.0	-45.0	-60.0	-75.0	
				-7.0	39.22	41.57	3.05	-0.42	0.00	0.58	1.18	1.52	1.56	0.46	-2.06	-5.21	36.5-47.8
				-15.0	38.95	41.31	0.88	-0.42	-0.27	0.00	0.37	0.57	0.43	-1.13	-4.01	-7.38	6.3-34.1

JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 8,CASE 8,DAMAGE FRS 76-85,4 HOLD,4 WING P,4 DB P, TUNNEL P,STG GR

SHIP BEFORE DAMAGE / SHIP AFTER DAMAGE

DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.5	-60.0	-75.0	
				-11.3	16.52	14.77	19.91	-3.22	-1.07	0.93	2.16	2.20	1.70	1.69	1.33	-0.63	87.2-70.2
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.8	-45.0	-60.0	-75.0	
				-11.5	22.65	22.46	10.32	-1.75	-0.67	0.52	1.69	2.00	2.35	2.39	0.86	-2.28	80.9-64.1
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.1	-45.0	-60.0	-75.0	
				-10.4	26.88	27.26	7.76	-1.22	-0.41	0.55	1.76	2.30	2.82	2.95	0.73	-2.59	93.4-63.3
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.0	-45.0	-60.0	-75.0	
				-9.5	30.05	30.79	6.54	-0.94	-0.26	0.58	1.78	2.45	2.73	2.85	0.35	-3.00	89.7-61.6
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-28.8	-30.0	-45.0	-60.0	-75.0	
				-8.2	32.96	34.57	5.70	-0.72	-0.12	0.65	1.87	2.43	2.62	2.41	-0.03	-3.46	81.6-59.8
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-25.4	-30.0	-45.0	-60.0	-75.0	
				-7.2	36.08	38.13	5.04	-0.55	-0.01	0.70	1.90	1.96	2.44	1.77	-0.67	-4.01	67.7-55.9
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-21.2	-25.0	-30.0	-45.0	-60.0	-75.0	
				-5.7	39.25	41.60	4.75	-0.42	0.10	0.79	1.46	1.85	1.95	1.02	-1.38	-4.45	51.9-51.4

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

DAMAGE STABILITY CALCULATIONS

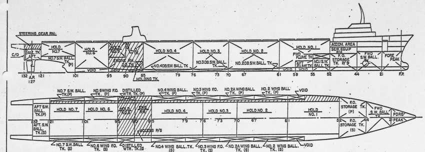
JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 9,CASE 9,DAMAGE FRS 85-95,5 HOLD,ENG RM,ENG RM VD,PW,
DW,DO,DW TRK,ENG MACH SP,FW CDAM,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB / RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.0	-60.0	-75.0	
				-7.0	14.92	18.19	5.37	-0.46	0.00	0.27	-0.45	-1.38	-4.80	-5.17	-8.01	-12.30	1.6-18.8
				-15.0	15.37	16.40	4.36	-0.46	-0.13	0.00	-0.89	-1.90	-5.53	-5.93	-8.91	-13.31	0.0-15.0
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.7	-45.0	-60.0	-75.0	
				-7.0	20.73	25.24	1.08	-0.07	0.00	0.06	-0.00	-0.23	-1.01	-1.57	-4.83	-9.34	0.5-24.3
				-15.0	21.35	23.72	0.85	-0.07	-0.03	0.00	-0.11	-0.36	-1.16	-1.74	-5.04	-9.57	0.0-15.0
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	35.1	45.0	60.0	75.0	
				7.0	24.73	29.93	0.41	-0.07	0.00	0.14	0.41	0.57	0.58	-0.88	-4.39	-8.44	9.9 39.0
				9.5	24.85	29.69	0.14 *	-0.07	-0.03	0.07	0.30	0.43	0.43	-1.07	-4.62	-8.70	6.7 37.9
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	30.0	31.0	45.0	60.0	75.0	
				7.0	27.90	33.09	1.00	-0.15	0.00	0.25	0.81	1.07	1.10	-0.28	-3.33	-7.20	18.3 42.1
				15.0	28.06	32.69	0.03	-0.15	-0.12	0.00	0.39	0.58	0.60	-0.98	-4.18	-8.15	6.6 36.3
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	25.0	26.5	30.0	45.0	60.0	75.0	
				7.0	30.95	36.54	1.76	-0.22	0.00	0.38	1.07	1.15	1.27	0.05	-2.67	-6.30	24.6 45.3
				14.4	30.86	36.45	0.37 *	-0.22	-0.17	0.01	0.47	0.52	0.57	-0.95	-3.89	-7.66	6.7 35.6
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	22.3	25.0	30.0	45.0	60.0	75.0	
				7.0	33.83	40.17	2.23	-0.28	0.00	0.45	0.90	1.03	0.99	-0.04	-2.58	-5.86	21.5 44.4
				15.0	33.77	40.11	0.50	-0.28	-0.21	0.00	0.24	0.29	0.11	-1.28	-4.09	-7.55	2.7 31.2
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	18.3	25.0	30.0	45.0	60.0	75.0	
				7.0	36.73	43.80	2.43	-0.32	0.00	0.39	0.54	0.64	0.45	-0.63	-3.00	-5.90	11.2 36.3
				15.0	36.19	44.33	0.93	-0.32	-0.18	0.00	0.06	0.00	-0.31	-1.70	-4.31	-7.36	0.3 25.0



DAMAGE CASE NO. 9

(FOR DETAILED DESCRIPTION SEE PAGE 9)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	15.37	16.40	4.36
Unsymm	15.0	21.35	23.72	0.85
Unsymm	15.0	24.85	29.69	0.14
Unsymm	15.0	28.06	32.69	0.03
Unsymm	15.0	30.86	36.45	0.37
Unsymm	15.0	33.77	40.11	0.50
Unsymm	15.0	36.19	44.33	0.93

REMARKS: ____________

DAMAGE STABILITY CALCULATIONS

JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 9,CASE 9,DAMAGE FRS 85-95,5 HOLD,ENG RM,ENG RM VD,PW,
DW,DO,DW TRK,ENG MACH SP,FW CDAM,TUNNEL P,STG GR

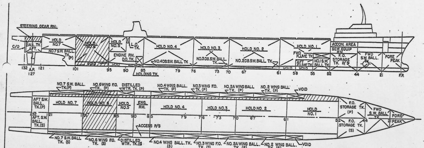
SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-47.0	-60.0	-75.0		
				-1.4	14.69	18.81	18.80	-0.46	1.79	4.07	5.77	5.97	5.60	5.58	4.72	1.90	331.1	-85.1
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.7	-45.0	-60.0	-75.0		
				-0.4	20.47	25.84	9.82	-0.07	1.10	2.39	3.80	4.26	4.74	4.79	2.95	-0.65	213.7	-72.3
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	35.1	45.0	60.0	75.0		
				0.6	24.76	29.95	7.27	-0.07	0.83	1.90	3.27	3.95	4.47	3.91	1.48	-1.90	165.6	66.6
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	30.0	31.0	45.0	60.0	75.0		
				1.5	27.90	33.09	5.99	-0.15	0.58	1.49	2.83	3.46	3.56	3.09	0.80	-2.59	127.9	63.5
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	25.0	26.5	30.0	45.0	60.0	75.0		
				2.6	30.92	36.51	4.80	-0.22	0.39	1.20	2.41	2.57	2.86	2.30	0.08	-3.23	95.1	60.4
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	22.3	25.0	30.0	45.0	60.0	75.0		
				3.7	33.81	40.15	4.16	-0.28	0.24	0.97	1.65	1.87	1.98	1.36	-0.86	-3.94	60.5	54.2
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	18.3	25.0	30.0	45.0	60.0	75.0		
				4.6	36.71	43.78	3.91	-0.32	0.17	0.75	0.97	1.22	1.14	0.35	-1.80	-4.57	31.5	47.4

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00



DAMAGE CASE NO. 10

(FOR DETAILED DESCRIPTION SEE PAGE 9)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	18.90	10.13	12.03
Unsymm	15.0	23.09	19.71	6.18
Unsymm	15.0	26.39	25.16	4.06
Unsymm	15.0	28.97	29.02	3.00
Unsymm	15.0	31.45	32.98	2.27
Unsymm	15.0	33.95	36.88	1.63
Unsymm	15.0	36.51	40.70	1.11

REMARKS: ____________

JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS — PAGE 42

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 10,CASE 10,DAMAGE FRS 95-101,6 HOLD,6 WING P,6 DB VD,6
WING TRUNK,6 WING OVFW,SF ALLEY,TUNNEL P,STG GR

SHIP BEFORE DAMAGE				SHIP	AFTER	DAMAGE												
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-46.8	-60.0	-75.0		
				-7.4	18.36	12.01	19.82	-2.41	-0.10	2.14	3.57	3.74	3.33	3.29	2.70	0.65	180.2	-79.8
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.9	-45.0	-60.0	-75.0		
				-8.3	22.55	21.01	9.16	-1.26	-0.20	1.02	2.31	2.69	2.99	3.07	1.66	-1.49	118.1	-67.9
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.6	-45.0	-60.0	-75.0		
				-8.2	25.85	26.32	6.50	-0.90	-0.14	0.81	2.09	2.69	3.27	3.42	1.42	-2.00	118.0	-66.2
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.7	-45.0	-60.0	-75.0		
				-7.8	28.51	30.03	5.29	-0.70	-0.08	0.73	1.96	2.65	3.04	3.33	0.90	-2.51	107.9	-63.9
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-30.0	-45.0	-60.0	-75.0		
				-7.1	31.11	33.83	4.51	-0.53	-0.01	0.70	1.91	2.67	2.67	2.86	0.44	-3.01	94.0	-61.9
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-26.4	-30.0	-45.0	-60.0	-75.0		
				-6.2	33.58	37.71	3.80	-0.39	0.05	0.68	1.84	2.04	2.49	2.11	-0.24	-3.64	75.2	-58.5
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-22.0	-25.0	-30.0	-45.0	-60.0	-75.0		
				-4.8	36.35	41.35	3.46	-0.28	0.13	0.71	1.44	1.79	2.04	1.31	-1.02	-4.15	56.0	-53.4

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

JOB NO. C7-1000
DRWG. NO.

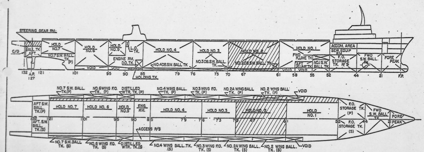
DAMAGE STABILITY CALCULATIONS — PAGE 41

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE - 10.CASE 10,DAMAGE FRS 95-101,6 HOLD,6 WING P,6 DB VD,6
WING TRUNK,6 WING OVFW,SF ALLEY,TUNNEL P,STG GR

SHIP BEFORE DAMAGE				SHIP	AFTER	DAMAGE												
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-45.0	-46.8	-60.0	-75.0		
				-7.0	18.33	12.10	20.49	-2.41	0.00	2.35	3.93	4.16	3.91	3.89	3.42	1.45	221.4	-86.1
				-15.0	18.90	10.13	12.03	-2.41	-1.11	0.00	0.08	-0.39	-2.52	-2.74	-4.46	-7.33	0.4	-25.8
22.00	27903	401.62	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-39.9	-45.0	-60.0	-75.0		
				-7.0	22.45	21.26	11.46	-1.26	0.00	1.43	2.99	3.49	4.02	4.20	3.04	0.06	179.7	-75.3
				-15.0	23.09	19.71	6.18	-1.26	-0.67	0.00	0.65	0.72	0.47	0.29	-1.75	-5.29	14.6	-47.1
26.00	34565	407.78	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-35.6	-45.0	-60.0	-75.0		
				-7.0	25.75	26.52	8.18	-0.90	0.00	1.11	2.57	3.25	3.93	4.22	2.40	-0.90	158.5	-70.9
				-15.0	26.39	25.16	4.06	-0.90	-0.52	0.00	0.76	1.11	1.44	1.19	-1.30	-5.04	32.2	-52.2
29.00	39860	412.83	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-32.7	-45.0	-60.0	-75.0		
				-7.0	28.46	30.14	6.37	-0.70	0.00	0.90	2.24	2.99	3.40	3.81	1.48	-1.86	129.9	-66.6
				-15.0	28.97	29.02	3.00	-0.70	-0.42	0.00	0.77	1.24	1.52	1.34	-1.54	-5.22	34.9	-52.0
32.00	45401	418.04	UNSYMM					0.0	-7.0	-15.0	-25.0	-30.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	31.11	33.84	4.97	-0.53	0.00	0.72	1.94	2.70	2.70	2.90	0.50	-2.95	95.7	-62.2
				-15.0	31.45	32.98	2.27	-0.53	-0.34	0.00	0.77	1.31	1.31	0.93	-1.91	-5.64	28.1	-49.9
35.00	51079	422.50	UNSYMM					0.0	-7.0	-15.0	-25.0	-26.4	-30.0	-45.0	-60.0	-75.0		
				-7.0	33.56	37.70	3.77	-0.39	0.00	0.57	1.65	1.85	2.27	1.79	-0.63	-4.07	63.7	-56.1
				-15.0	33.95	36.88	1.63	-0.39	-0.27	0.00	0.73	0.87	1.17	0.24	-2.53	-6.19	19.2	-46.3
38.00	56840	426.06	UNSYMM					0.0	-7.0	-15.0	-22.0	-25.0	-30.0	-45.0	-60.0	-75.0		
				-7.0	36.31	41.30	2.78	-0.28	0.00	0.44	1.05	1.34	1.51	0.57	-1.93	-5.17	34.3	-48.4
				-15.0	36.51	40.70	1.11	-0.28	-0.21	0.00	0.41	0.62	0.66	-0.64	-3.41	-6.82	8.7	-37.6



DAMAGE CASE NO. 3A

(FOR DETAILED DESCRIPTION SEE PAGE 10)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	21.92	13.50	8.79
Unsymm	15.0	29.70	19.73	5.59
Unsymm	15.0	34.58	23.97	4.29
Unsymm	15.0	38.07	27.25	3.53
Unsymm	15.0	41.40	30.65	2.93
Unsymm	15.0	44.78	34.01	2.49
Unsymm	15.0	48.22	37.30	2.30

REMARKS: ______

JOB NO. C7-1000
DRWG. NO.

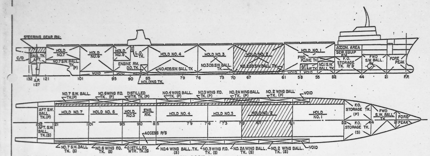
DAMAGE STABILITY CALCULATIONS — PAGE 44

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE 3A ,CASE 3A,DAMAGE FRS 61-70,2 HOLD,2 WING P,2 DB P,
TUNNEL P,STG GR

SHIP BEFORE DAMAGE				SHIP	AFTER	DAMAGE												
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	42.6	45.0	60.0	75.0		
				7.0	21.23	14.99	13.46	-1.26	0.00	1.21	1.96	1.93	1.25	1.06	-1.06	-4.51	57.2	52.5
				15.0	21.92	13.50	8.79	-1.26	-0.57	0.00	-0.02	-0.40	-1.91	-2.25	-5.11	-9.03	0.0	15.0
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	34.9	45.0	60.0	75.0		
				7.0	28.95	20.94	10.71	-1.12	0.00	1.32	2.94	3.61	4.09	4.44	2.74	-0.50	176.1	72.7
				15.0	29.70	19.73	5.59	-1.12	-0.62	0.00	0.78	1.05	1.16	0.82	-1.69	-5.44	26.0	49.9
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	30.3	45.0	60.0	75.0		
				7.0	33.87	25.01	9.35	-1.06	0.00	1.31	3.14	3.99	4.04	4.98	3.32	0.39	203.3	77.0
				15.0	34.58	23.97	4.29	-1.06	-0.62	0.00	1.00	1.45	1.49	1.40	-1.07	-4.50	38.8	53.5
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	26.8	30.0	45.0	60.0	75.0		
				7.0	37.45	28.15	8.48	-1.02	0.00	1.28	3.08	3.41	3.98	4.73	3.14	0.30	194.9	76.6
				15.0	38.07	27.25	3.53	-1.02	-0.60	0.00	1.00	1.18	1.50	1.23	-1.14	-4.48	36.5	52.8
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	23.6	25.0	30.0	45.0	60.0	75.0		
				7.0	40.93	31.33	7.70	-0.98	0.00	1.23	2.67	2.92	3.69	4.16	2.58	-0.24	169.4	73.7
				15.0	41.40	30.65	2.93	-0.98	-0.58	0.00	0.76	0.90	1.30	0.79	-1.55	-4.85	27.6	50.1
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	20.2	25.0	30.0	45.0	60.0	75.0		
				7.0	44.19	34.62	6.96	-0.95	0.00	1.16	1.94	2.63	3.13	3.39	1.77	-0.89	134.4	70.0
				15.0	44.78	34.01	2.49	-0.95	-0.54	0.00	0.39	0.74	0.90	0.23	-2.10	-5.20	16.5	46.5
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	16.8	25.0	30.0	45.0	60.0	75.0		
				7.0	47.66	37.72	6.33	-0.93	0.00	1.04	1.28	2.18	2.44	2.40	0.79	-1.63	94.1	64.9
				15.0	48.22	37.30	2.30	-0.93	-0.49	0.00	0.12	0.48	0.43	-0.45	-2.70	-5.52	6.3	37.3



DAMAGE CASE NO. 4A

(FOR DETAILED DESCRIPTION SEE PAGE 10)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	21.58	13.89	9.16
Unsymm	15.0	29.31	20.14	5.87
Unsymm	15.0	34.18	24.37	4.53
Unsymm	15.0	37.67	27.64	3.75
Unsymm	15.0	40.98	31.04	3.14
Unsymm	15.0	44.35	34.41	2.70
Unsymm	15.0	47.82	37.71	2.52

REMARKS: ______

JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS — PAGE 45

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE 3A ,CASE 3A,DAMAGE FRS 61-70,2 HOLD,2 WING P,2 DB P,
TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	SHIP AFTER DAMAGE: HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	42.6	45.0	60.0	75.0		
				4.4	21.07	15.17	16.77	-1.26	0.76	2.83	4.60	5.06	5.48	5.48	4.36	1.53	280.4	83.1
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	34.9	45.0	60.0	75.0		
				7.6	29.01	20.85	8.27	-1.12	-0.09	1.12	2.61	3.22	3.65	3.89	2.06	-1.25	146.6	69.3
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	30.3	45.0	60.0	75.0		
				9.2	34.07	24.72	6.20	-1.06	-0.28	0.72	2.18	2.85	2.90	3.38	1.36	-1.80	116.2	66.5
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	26.8	30.0	45.0	60.0	75.0		
				10.0	37.68	27.81	5.39	-1.02	-0.34	0.57	1.92	2.17	2.60	2.78	0.76	-2.36	93.3	63.6
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	23.6	25.0	30.0	45.0	60.0	75.0		
				10.2	41.12	31.06	5.08	-0.98	-0.34	0.51	1.56	1.74	2.29	2.19	0.17	-2.93	73.8	60.8
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	20.2	25.0	30.0	45.0	60.0	75.0		
				10.5	44.45	34.36	4.85	-0.95	-0.34	0.44	0.98	1.46	1.76	1.44	-0.62	-3.55	50.1	55.5
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	16.8	25.0	30.0	45.0	60.0	75.0		
				10.5	47.91	37.53	4.88	-0.93	-0.31	0.39	0.55	1.11	1.18	0.61	-1.40	-4.08	29.0	49.5

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

DATE 06/28/79
JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS — PAGE 47

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE-4A,CASE4A,DAMAGE FRS 61-70,2 HOLD,2A WING P,2 DB P,2A
WING TRUNK,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	SHIP AFTER DAMAGE: HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	42.9	45.0	60.0	75.0		
				7.0	21.00	15.26	14.32	-1.34	0.00	1.34	2.27	2.35	1.93	1.81	-0.21	-3.62	78.6	58.4
				15.0	21.58	13.89	9.16	-1.34	-0.63	0.00	0.09	-0.23	-1.58	-1.84	-4.68	-8.60	0.5	26.4
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	35.2	45.0	60.0	75.0		
				7.0	28.66	21.24	11.43	-1.20	0.00	1.44	3.22	3.97	4.56	4.94	3.35	0.24	204.9	76.1
				15.0	29.31	20.14	5.87	-1.20	-0.68	0.00	0.87	1.19	1.36	1.01	-1.46	-5.13	30.9	51.1
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	30.5	45.0	60.0	75.0		
				7.0	33.37	25.47	9.95	-1.14	0.00	1.40	3.38	4.28	4.38	5.36	3.81	0.98	228.7	80.2
				15.0	34.18	24.37	4.53	-1.14	-0.66	0.00	1.09	1.57	1.63	1.53	-0.88	-4.26	43.0	54.5
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	27.0	30.0	45.0	60.0	75.0		
				7.0	36.94	28.59	9.03	-1.09	0.00	1.37	3.29	3.68	4.23	5.07	3.60	0.83	217.3	79.5
				15.0	37.67	27.64	3.75	-1.09	-0.64	0.00	1.06	1.28	1.59	1.33	-0.97	-4.27	39.6	53.7
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	23.8	25.0	30.0	45.0	60.0	75.0		
				7.0	40.43	31.75	8.23	-1.05	0.00	1.32	2.89	3.11	3.89	4.48	3.01	0.26	188.6	76.4
				15.0	40.98	31.04	3.14	-1.05	-0.62	0.00	0.83	0.96	1.35	0.88	-1.40	-4.66	29.8	50.8
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	20.5	25.0	30.0	45.0	60.0	75.0		
				7.0	43.91	34.89	7.49	-1.02	0.00	1.24	2.11	2.79	3.32	3.70	2.19	-0.39	151.3	72.7
				15.0	44.35	34.41	2.70	-1.02	-0.58	0.00	0.44	0.77	0.93	0.32	-1.96	-5.01	17.9	47.1
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	17.0	25.0	30.0	45.0	60.0	75.0		
				7.0	47.38	38.04	6.81	-0.99	0.00	1.11	1.39	2.31	2.60	2.68	1.15	-1.18	106.6	67.4
				15.0	47.82	37.71	2.52	-0.99	-0.52	0.00	0.14	0.50	0.46	-0.36	-2.57	-5.33	7.0	38.4

DATE 06/28/79
JOB NO. C7-1000
DRWG. NO.

DAMAGE STABILITY CALCULATIONS — PAGE 48

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE-4A,CASE4A,DAMAGE FRS 61-70,2 HOLD,2A WING P,2 DB P,2A
WING TRUNK,TUNNEL P,STG GR

SHIP BEFORE DAMAGE DRAFT	DISPL.	LCG	TYPE OF FLOODING	SHIP AFTER DAMAGE: HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	42.9	45.0	60.0	75.0		
				4.7	20.89	15.37	16.41	-1.34	0.66	2.73	4.55	5.05	5.60	5.63	4.46	1.60	283.1	83.4
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	35.2	45.0	60.0	75.0		
				8.2	28.75	21.08	8.14	-1.20	-0.18	1.05	2.58	3.22	3.70	3.88	2.05	-1.21	145.6	69.4
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	30.5	45.0	60.0	75.0		
				9.8	33.65	25.09	6.16	-1.14	-0.35	0.66	2.17	2.85	2.93	3.34	1.34	-1.78	114.7	66.4
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	27.0	30.0	45.0	60.0	75.0		
				10.5	37.26	28.17	5.36	-1.09	-0.40	0.51	1.89	2.18	2.57	2.72	0.73	-2.37	91.2	63.5
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	23.8	25.0	30.0	45.0	60.0	75.0		
				10.8	40.69	31.42	5.07	-1.05	-0.40	0.46	1.55	1.70	2.23	2.13	0.13	-2.95	71.4	60.6
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	20.5	25.0	30.0	45.0	60.0	75.0		
				11.1	44.14	34.64	4.84	-1.02	-0.40	0.39	0.96	1.40	1.68	1.38	-0.66	-3.57	47.4	55.1
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	17.0	25.0	30.0	45.0	60.0	75.0		
				11.2	47.62	37.87	4.88	-0.99	-0.37	0.33	0.51	1.04	1.10	0.55	-1.46	-4.10	26.4	49.1

N O T E S :

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

DAMAGE STABILITY CALCULATIONS

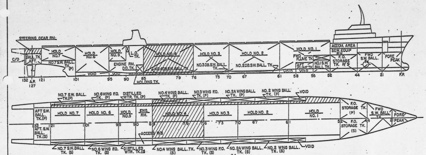
JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE 8A ,CASE 8A,DAMAGE FRS 76-85,4 HOLD,4 WING P,4 DB P,
TUNNEL P,STG GR

SHIP BEFORE DAMAGE			SHIP			AFTER		DAMAGE										
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	REQ. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	45.0	45.4	60.0	75.0		
				7.0	15.36	20.31	11.58	-1.28	0.00	1.23	1.92	1.85	0.83	0.80	-1.91	-6.20	52.2	49.7
				15.0	15.78	18.99	6.82	-1.28	-0.58	0.00	-0.10	-0.53	-2.53	-2.59	-6.04	-10.80	0.0	15.0
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	38.0	45.0	60.0	75.0		
				7.0	22.15	26.54	9.05	-1.14	0.00	1.33	2.83	3.42	4.09	3.90	1.56	-1.80	146.1	67.0
				15.0	22.75	25.42	3.93	-1.14	-0.62	0.00	0.67	0.86	0.94	0.28	-2.87	-6.75	18.8	46.3
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	33.5	45.0	60.0	75.0		
				7.0	26.88	30.37	8.01	-1.07	0.00	1.30	3.05	3.90	4.36	4.21	2.28	-0.74	169.6	71.3
				15.0	27.35	29.55	2.98	-1.07	-0.61	0.00	0.93	1.38	1.58	0.65	-2.08	-5.60	29.6	48.6
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	30.0	30.3	45.0	60.0	75.0		
				7.0	30.31	33.38	7.55	-1.03	0.00	1.28	3.11	3.92	3.97	4.11	2.37	-0.63	167.8	71.9
				15.0	30.58	32.89	2.62	-1.03	-0.60	0.00	1.03	1.45	1.48	0.62	-1.90	-5.39	28.3	48.7
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	25.0	26.2	30.0	45.0	60.0	75.0		
				7.0	33.56	36.71	7.27	-0.99	0.00	1.26	2.96	3.15	3.63	3.77	2.10	-0.77	153.8	71.0
				15.0	33.45	36.59	2.40	-0.99	-0.59	0.00	0.90	1.00	1.19	0.33	-2.12	-5.47	21.5	47.0
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	22.3	25.0	30.0	45.0	60.0	75.0		
				7.0	36.72	40.10	6.92	-0.96	0.00	1.23	2.29	2.66	2.98	3.13	1.49	-1.12	125.4	68.6
				15.0	36.65	40.03	2.17	-0.96	-0.58	0.00	0.49	0.65	0.60	-0.23	-2.63	-5.71	9.7	40.9
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	18.4	25.0	30.0	45.0	60.0	75.0		
				7.0	39.85	43.51	6.53	-0.94	0.00	1.06	1.48	2.04	2.24	2.15	0.58	-1.71	85.4	63.8
				15.0	39.56	43.87	2.44	-0.94	-0.50	0.00	0.19	0.31	0.19	-0.74	-2.96	-5.66	3.6	33.1



DAMAGE CASE NO. 8A
(FOR DETAILED DESCRIPTION SEE PAGE 10)

CONDITION OF SHIP PRIOR TO DAMAGE				
INTACT EVEN KEEL DRAFT FEET	DISPLACEMENT L. TON	V.C.G. FEET	L.C.G. FEET	GM FEET
16	18,656.1	39.00	392.57	19.72
22	27,903.7	41.20	401.62	9.93
26	34,565.0	41.40	407.78	7.09
29	39,860.6	41.60	412.83	5.72
32	45,401.6	41.70	418.04	4.91
35	51,079.0	41.90	422.50	4.20
38	56,840.4	42.00	426.06	3.80

CONDITION OF SHIP AFTER DAMAGE				
TYPE OF FLOODING	HEEL	DRAFT FWD AT SHIP CL.	DRAFT AFT AT SHIP CL.	REQUIRED GM FEET
Unsymm	15.0	15.78	18.99	6.82
Unsymm	15.0	22.75	25.42	3.93
Unsymm	15.0	27.35	29.55	2.98
Unsymm	15.0	30.58	32.89	2.62
Unsymm	15.0	33.45	36.59	2.40
Unsymm	15.0	36.65	40.03	2.17
Unsymm	15.0	39.56	43.87	2.44

REMARKS: ____________

DAMAGE STABILITY CALCULATIONS

JOB NO. C7-1000
DRWG. NO.

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

DESCRIPTION OF DAMAGE 8A, CASE 8A,DAMAGE FRS 76-85,4 HOLD,4 WING P,4 DB P,
TUNNEL P,STG GR

SHIP BEFORE DAMAGE			SHIP			AFTER		DAMAGE										
DRAFT	DISPL.	LCG	TYPE OF FLOODING	HEEL AFTER DAM.	DRAFT FWD.	DRAFT AFT	AVA. G M	ANGLES OF HEEL AND CORRESPONDING RESIDUAL GZ AFTER DAMAGE									RESID. STAB	RANGE OF STAB
16.00	18656	392.57	UNSYMM					0.0	7.0	15.0	25.0	30.0	45.0	45.4	60.0	75.0		
				3.9	15.38	20.34	18.61	-1.28	0.99	3.34	5.36	5.91	6.59	6.60	5.13	1.66	329.5	82.1
22.00	27903	401.62	UNSYMM					0.0	7.0	15.0	25.0	30.0	38.0	45.0	60.0	75.0		
				6.4	22.15	26.54	9.94	-1.14	0.11	1.55	3.20	3.86	4.63	4.52	2.32	-0.96	177.7	70.6
26.00	34565	407.78	UNSYMM					0.0	7.0	15.0	25.0	30.0	33.5	45.0	60.0	75.0		
				7.8	26.92	30.29	7.57	-1.07	-0.11	1.06	2.66	3.44	3.85	3.55	1.48	-1.64	136.0	67.1
29.00	39860	412.83	UNSYMM					0.0	7.0	15.0	25.0	30.0	30.3	45.0	60.0	75.0		
				8.7	30.37	33.27	6.38	-1.03	-0.22	0.80	2.34	3.00	3.04	2.81	0.79	-2.40	104.0	63.7
32.00	45401	418.04	UNSYMM					0.0	7.0	15.0	25.0	26.2	30.0	45.0	60.0	75.0		
				9.5	33.53	36.67	5.57	-0.99	-0.29	0.65	1.96	2.11	2.45	2.11	0.06	-3.04	76.4	60.3
35.00	51079	422.50	UNSYMM					0.0	7.0	15.0	22.3	25.0	30.0	45.0	60.0	75.0		
				10.1	36.69	40.07	4.97	-0.96	-0.33	0.53	1.26	1.51	1.62	1.21	-0.87	-3.75	45.8	53.7
38.00	56840	426.06	UNSYMM					0.0	7.0	15.0	18.4	25.0	30.0	45.0	60.0	75.0		
				10.9	39.71	43.68	4.76	-0.94	-0.33	0.35	0.62	0.89	0.87	0.22	-1.78	-4.36	20.1	46.6

NOTES:

CALCULATION MADE FOR WATER WITH A DENSITY OF 35.00 CU.FT. PER TON

THE ABOVE CONDITIONS ASSUME FOR EA. DRAFT THE FOLLOWING VCG'S BEFORE DAMAGE

39.00 41.20 41.40 41.60 41.70 41.90 42.00

A S I DWG NO 29-01-09 REV 2

NAME OF VESSEL	A S I HULL NO	M A HULL NO	M A DESIGN
EDWARD RUTLEDGE	2308	337	C9-S-81f
BENJAMIN HARRISON	2307	336	C9-S-81f

RESERVATIONS

NO.	DESCRIPTION
2	~~PENDING TONNAGE ASSIGNMENT~~
1	~~PENDING RESULTS OF INCLINING EXPERIMENT~~

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
PO BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY J FISHER DATE 6-3-80
CHECKED BY D.F.N. DATE 6/3/80
APVD [signature] 6/9/80
APVD [signature] PROJECT MANAGER 6/9/80
APVD NOT REQ'D

STABILITY BOOKLET

SIZE A — A S I DRAWING NO C7-1000 29-01-09 — REV 2
SCALE — SH NO 1 OF 128

Form A-HTB-W (12-77)

PRINT DISTRIBUTION

DEPT.	PREL	0	1	2
MOLD LOFT				
PRODUCTION		–	–	–
PROD. PLANNING		/	/	–
ENGINEERING FILE		/	/	/
ESTIMATING				
MATERIAL REQN.				
PROJECT MANAGER		/	/	/
QUALITY CONTROL		/	/	/
STEEL TAKE OFF				
DESIGN SECTION			/	/
ELECTRICAL SECTION				
H.V.A.C. SECTION				
HULL SECTION				
MECH. COMPOSITE				
MECHANICAL DESIGN				
MECHANICAL DEV.				
OUTFITTING SECTION				
HULL COMPOSITE				
A.B.S.-(N.O.)				
A.B.S.-(N.Y.)				
A.B.S.-INSP.				
ADMEASURER				
U.S.C.G. (N.O.)		2	1	2
U.S.C.G.-INSP.				
U.S.P.H.S.				
JOINER CONTR.				
Raytheon		1	1	1
7th D (HOME)		3	3	3
1st D (YARD)		1	1	1
Waterman		1	4	4
MARAD (WASH)		2	2	2
MARAD (YARD)		1	1	1
Sig. Solares		1	1	1
TOTAL		16	12	19
DATE OF PRINT ISSUE		6/3/80	7/22/80	9/11/80

INDEX

DWG. NO. C7-1000 29-01-09
INDEX & PRINT DISTRIBUTION
SHEET NO 2

REFERENCES

REV.	NO.	TITLE	DRAWING NO.
	1	CAPACITY PLAN	29-01-01
	2	TANK CAPACITY CURVES	29-01-03
	3	TANK SOUNDING AND ULLAGE TABLES	29-01-04
	4	HYDROSTATIC CURVES	29-01-05
	5	DAMAGE STABILITY CURVES	29-01-07
	6	DAMAGE STABILITY CALCULATIONS	29-01-08
	7	GRAIN LOADING BOOKLET	29-01-10
	8	STABILITY TEST DATA	29-01-13
	9	LONGITUDINAL STRENGTH CALCULATIONS	29-01-14
	10	LONGITUDINAL STRENGTH CURVES	29-01-15
	11	LOADING MANUAL	29-01-16
	12	FLUME STABILIZATION SYSTEM OPERATING INSTRUCTION MANUAL	JJ MCMULLEN JJM - 1307F
	13–36		

DWG. NO. C7-1000 29-01-09
REFERENCES
SHEET NO. 3

Form ED-SMB-5

REVISIONS

REV.	SHT. NO.	ITEM NO.	DESCRIPTION	BY	A.S.I. APRVD DATE	OWNER APRVD DATE
1		1	Removed Reservation No. 1.	JTF 7-16-80	7/21/80	
		2	Booklet revised to suit Lightship Data obtained from Inclining Experiment, Revised for removal of Container Crane and Container Guides in Holds 1A and 1B, in/way of Lighter Interference.			
2		1	Removed Reservation No. 2.	JTF 9-8-80	9/11/80	
		2	Booklet Revised to Suit Correct Container Crane Weight per PACECO Dwg. 894-100-01E, Revision (4).			
		3	Page 1 added ship names, pages 9 and 10 made legible, page 11 added note, page 16 added Note No.8, all to suit U.S. Maritime Administration Approval Letter, dated 8/14/1980.			
		4	Revised 400 GAllon Emer. Dg. Day Tk. VCG to correct.			

DWG. NO. C7-1000 29-01-09
REVISIONS
SHEET NO 4

Form ED-SMB-4

GENERAL DATA

LENGTH OVERALL (INCLUDING CRANE OVERHANGS)------893'-4"
LENGTH OVERALL (EXCLUDING CRANE OVERHANGS)------845'-4"
LENGTH BETWEEN PERPENDICULARS------797'-4"
LENGTH BETWEEN DRAFT MARKS------705'-8"
BEAM MOLDED------100'-0"
BEAM EXTREME------100'-2 3/4"
DEPTH MOLDED TO MAIN DECK AT SIDE------60'-0"
SUMMER DRAFT KEEL SW------38'-1½"
SUMMER FREEBOARD------22'-1½"
SUMMER DISPLACEMENT------57,033.7 L. TONS
SUMMER DEADWEIGHT------40,515.4 L. TONS
LIGHTSHIP DRAFT KEEL SW------14'-6½" *
LIGHTSHIP WEIGHT------16,518.3 L. TONS *
LIGHTSHIP VERTICAL CENTER OF GRAVITY ABOVE B.L.------38.94' *
LIGHTSHIP LONG'L CENTER OF GRAVITY AFT F.P.------432.68' *
LIGHTER CAPACITY------89 BARGES
GROSS REGISTER TONNAGE------29,965.05
NET REGISTER TONNAGE------22,468.00
OFFICIAL NUMBER - HULL 2307 BENJAMIN HARRISION - CALL LETTERS WFLC------624457
OFFICIAL NUMBER - HULL 2308 EDWARD RUTLEDGE - CALL LETTERS WFLH------RESV. #2

PROPELLING MACHINERY

BOILER - 2 WATER TUBE, 870PSIG, 955°F
TURBINES - 32,000 A.B.S. RATED S.H.P., 105.0 RPM

PROPELLER 1-4 BLADE NI-AL BRONZE, 23'-0" DIA., PITCH 27'-3.89" AT 0.7R
DESIGN SERVICE SPEED 22.00 KNOTS AT 28'-0" DRAFT

CARGO HANDLING MACHINERY

LIGHTER CRANE MAX. CAPACITY = 455.0 LONG TONS

SHIP STORES HANDLING MACHINERY

CARGO BOOMS MAX CAPACITY = 5.0 LONG TONS

* LIGHTSHIP REFLECTS DATA OBTAINED FROM STABILITY TEST OF 5-23-80 REVISED TO SUIT REMOVAL OF CONTAINER CRANE AND REMOVAL OF CONTAINER GUIDES IN HOLDS 1A AND 1B THAT INTERFERE WITH LIGHTER STOWAGE.

TANK SUMMARIES

TANK	FRAME	CAPACITY 100% GALLONS	CAPACITY 100% L.TONS	CAPACITY 98% L.TONS	VCG ABOVE BL FEET	LCG AFT FP FEET	TCG FROM CL FEET +PORT/-STBD	MAX. FREE SURFACE FT - TONS
BALLAST TANKS								
FOREPEAK SW BALLAST	-8-21	139,074.75	531.15	520.53	23.47	21.18	-0.02	422.9
FWD SW BALLAST	21-44	227,659.13	869.48	852.09	22.22	70.79	0	2,954.7
#1 SW BALLAST	52-55	344,012.69	1,313.85	1,287.57	14.77	173.54	0	21,687.9
#2 DB SW BALLAST P	61-70	181,235.75	692.18	678.34	3.55	321.63	+ 20.98	19,453.8
#2 DB SW BALLAST S	61-70	181,235.75	692.18	678.34	3.55	321.63	- 20.98	19,453.8
#2 WING SW BALLAST P	61-67	350,682.25	1,339.33	1,312.54	34.11	302.30	+ 42.29	555.9
#2 WING SW BALLAST S	61-67	350,682.25	1,339.33	1,312.54	34.11	302.30	- 42.29	555.9
#2A WING SW BALLAST P	67-73	360,218.94	1,375.75	1,348.24	32.82	374.36	+ 42.89	584.5
#2A WING SW BALLAST S	67-73	360,218.94	1,375.75	1,348.24	32.82	374.36	- 42.89	584.5
#3 DB SW BALLAST P	70-76	129,786.56	495.68	485.77	3.57	411.00	+ 22.07	14,503.8
#3 DB SW BALLAST S	70-76	129,786.56	495.68	485.77	3.57	411.00	- 22.07	14,503.8
#4 DB SW BALLAST P	76-85	177,218.13	676.83	663.29	3.57	499.74	+ 20.74	19,111.9
#4 DB SW BALLAST S	76-85	177,218.13	676.83	663.29	3.57	499.74	- 20.74	19,111.9
#4 WING SW BALLAST P	79-85	372,028.25	1,420.85	1,392.43	33.70	520.73	+ 42.64	584.8
#4 WING SW BALLAST S	79-85	372,028.25	1,420.85	1,392.43	33.70	520.73	- 42.64	584.8
#7 SW BALLAST P	101-121	449,793.13	1,717.85	1,683.49	32.91	736.77	+ 22.48	112.5
#7 SW BALLAST S	101-121	342,341.19	1,307.47	1,281.32	35.36	737.18	- 30.53	8,231.7
AFT SW BALLAST P	121-132	201,087.75	767.99	752.63	39.99	793.22	+ 20.16	6,938.0
AFT SW BALLAST S	121-132	201,087.75	767.99	752.63	39.99	793.22	- 20.16	6,938.0
TOTAL SW BALLAST		5,047,396.15	19,277.02	18,891.48	26.25	446.00	- 0.07	156,875.1
FRESH WATER TANKS								
DISTILLED WATER P	90-95	65,428.82	242.94	238.08	47.58	613.13	+ 43.77	233.8
DISTILLED WATER S	90-95	65,428.82	242.94	238.08	47.58	613.13	- 43.77	233.8
POTABLE WATER P	90-95	40,785.01	151.44	148.41	27.03	610.91	+ 40.10	137.8
POTABLE WATER S	90-95	40,785.01	151.44	148.41	27.03	610.91	- 40.10	137.8
TOTAL FRESH WATER		212,427.66	788.76	772.98	39.69	612.28	0	743.2
PASSIVE STABILIZER TANKS								
FWD FLUME	52-55	181,120.00	691.73	677.90	31.09	173.31	0	29,605.8
AFT FLUME	55-58	258,543.56	987.43	967.68	14.76	209.97	0	35,360.0
TOTAL FLUMES SW		439,663.56	1,679.16	1,645.58	21.44	194.87	0	64,965.8
SANITARY WASTE TANKS								
500 GALLON SEWAGE SW	89-90	504.16	67.39	1.93	15.29	591.16	- 33.18	0.2
BILGE SLOP SW	86-88	36,011.57	4,813.74	137.54	4.11	572.29	0	10,927.8

TANK SUMMARIES

TANK	FRAME	CAPACITY 100% GALLONS	CAPACITY 98% BARRELS	CAPACITY 98% L.TONS	VCG ABOVE BL FEET	LCG AFT FP FEET	TCG FROM CL FEET +PORT/-STBD	MAX. FREE SURFACE FT - TONS
FUEL OIL TANKS								
FUEL OIL STORAGE P	44-52	282,545.34	6,592.72	994.17	20.79	127.80	+ 10.12	2,358.8
FUEL OIL STORAGE S	44-52	282,545.34	6,592.72	994.17	20.79	127.80	- 10.12	2,358.8
#3 WING FUEL OIL P	73-79	369,676.86	8,625.79	1,300.75	33.07	447.56	+ 42.81	549.6
#3 WING FUEL OIL S	73-79	369,676.86	8,625.79	1,300.75	33.07	447.56	- 42.81	549.6
#6 WING FUEL OIL P	95-101	368,404.26	8,596.10	1,296.28	31.23	663.88	+ 34.53	4,453.3
#6 WING FUEL OIL S	95-101	385,188.72	8,987.74	1,355.33	30.47	663.78	- 33.32	6,477.1
FO STORAGE OVERFLOW P	44-45	5,854.82	136.61	20.60	40.80	99.41	+ 16.79	44.2
FO STORAGE OVERFLOW S	44-45	5,854.82	136.61	20.60	40.80	99.41	- 16.79	44.2
#3 WING FO OVERFLOW P	73-73.3	5,403.72	126.09	19.01	55.06	414.67	+ 45.04	16.1
#3 WING FO OVERFLOW S	73-73.3	5,403.72	126.09	19.01	55.06	414.67	- 45.04	16.1
#6 WING FO OVERFLOW P	95-95.3	5,403.72	126.09	19.01	55.06	634.67	+ 45.01	16.1
#6 WING FO OVERFLOW S	95-95.3	5,403.72	126.09	19.01	55.06	634.67	- 45.01	16.1
TOTAL FUEL OIL		2,091,361.90	48,798.44	7,358.69	29.22	437.94	- 0.05	16,900.0
DIESEL OIL TANKS								
DIESEL OIL P	85-87	17,585.98	410.34	56.13	15.82	564.83	+ 40.57	75.2
DIESEL OIL S	85-87	17,585.98	410.34	56.13	15.82	564.83	- 40.57	75.2
400 GAL EMER DSL GEN DAY P	87-88	393.66	9.19	1.26	72.93	574.56	+ 48.42	0.1
TOTAL DIESEL OIL		25,565.62	829.87	113.52	16.45	564.94	+ 0.54	150.5
LUBE OIL TANKS								
LUBE OIL STORAGE P	89-90	8,463.70	147.49	28.43	51.88	590.66	+ 26.00	91.3
LUBE OIL STORAGE DSL GEN P	89-90	1,255.45	29.29	4.22	51.87	590.66	+ 1.33	0.3
LUBE OIL GRAVITY S	89-90	4,406.50	102.82	14.80	52.62	590.66	- 4.00	8.0
LUBE OIL SETTLING P	89-90	6,015.77	140.37	20.21	52.28	590.47	+ 9.83	46.1
MAIN LUBE OIL SUMP	93-94	5,658.18	132.02	19.01	10.81	618.53	0	61.3
TOTAL LUBE OIL		25,799.60	601.99	86.67	43.09	596.73	+ 10.20	207.0

CONVERSION TABLE

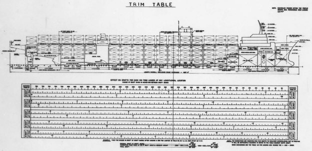
DENSITIES:
1. FUEL OIL ______ 37.23 FT ³/L.TON
2. LUBE OIL ______ 39.00 FT ³/L.TON
3. DIESEL OIL ______ 41.04 FT ³/L.TON
4. SALT WATER ______ 35.00 FT ³/L.TON
5. FRESH WATER ______ 36.00 FT ³/L.TON

TO CONVERT FROM GALLONS:
1. BARRELS ______ GALS / 42
2. CUBIC FEET ______ GALS / 7.481
3. L. TONS FUEL OIL ______ GALS / 278.518
4. L. TONS LUBE OIL ______ GALS / 291.759
5. L. TONS DIESEL OIL ______ GALS / 307.020
6. L. TONS SALT WATER ______ GALS / 261.835
7. L. TONS FRESH WATER ______ GALS / 269.316

TO CONVERT:	MULTIPLY BY
1. LONG TONS TO POUNDS	2240
2. LONG TONS TO SHORT TONS	1.12
3. LONG TONS TO METRIC TONS	1.01605
4. INCHES TO CENTIMETERS	2.54
5. CUBIC FEET TO CUBIC METERS	0.02832
6. CUBIC METERS TO CUBIC FEET	35.31445
7. FEET TO METERS	0.30480
8. METERS TO FEET	3.280
9. FATHOMS TO FEET	6.00

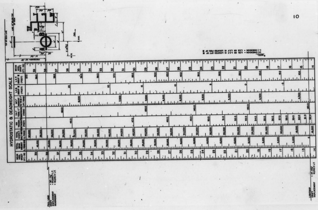
RED. 8X DATE 7-81
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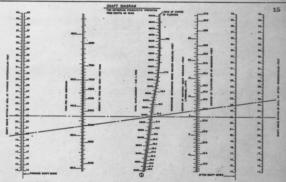
TRIM TABLE

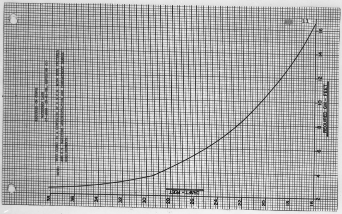


GENERAL NOTES

1. The longitudinal reference line is the vessel's forward perpendicular, unless otherwise noted, then the reference is midships where AFT of midships is treated as a positive number and forward of midships is a negative number.
2. The vertical reference plane for load items is the vessel's baseline which is 0.09 feet above the bottom of the keel.
3. The transverse reference plane is the vessel's centerline where positive is port and negative is starboard.
4. Two methods of determining stability and trim are given, the short form pages 18 to 32 and the long form pages 33 to 128.
5. The lighters are numbered on the loading forms according to tiers, lighters in the holds are numbered 1 to 4, and lighters on hatch covers are numbered 5 to 6.
6. The calculations for determining the available GM and drafts are based on the results of a stability test conducted on (5-23-80) under the supervision of the U.S. Coast Guard.
7. The operation of the flume stabilization system is discussed by reference #12.
8. The Required GM Curve plotted on Page 11 is a Composite Curve of United States Coast Guard Wing Heel and United States Maritime Administration one compartment damage requirements.

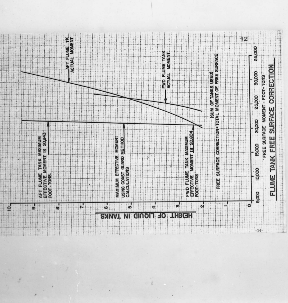






INSTRUCTIONS FOR USE OF THE DRAFT DIAGRAM

1. THE DRAFT DIAGRAM ON PAGE 15 PROVIDES A SIMPLE METHOD OF DETERMINING THE LCF DRAFT FROM THE DRAFTS AS READ FROM THE MARKS.
2. LOCATE THE FWD AND AFT DRAFTS ON THEIR RESPECTIVE SCALES AND CONNECT THE POINTS WITH A STRAIGHT EDGE.
3. ROTATE THE STRAIGHT EDGE ABOUT THE POINT WHERE THE LINE CONNECTING THE FWD AND AFT DRAFT READINGS INTERSECT THE LOCUS OF THE CENTER OF FLOTATION UNTIL THE FWD AND AFT DRAFTS ARE EQUAL AND DRAW A SECOND STRAIGHT LINE.
4. THE LCF DRAFT CAN BE READ FROM THE DRAFT DIAGRAM AT THE INTERSECTION OF THE SECOND LINE. ALSO, ALL THE HYDROSTATIC PROPERTIES MAY ALSO BE READ AT THE INTERSECTION OF THE SECOND LINE AND EACH RESPECTIVE HYDROSTATIC SCALE.
5. THE ILLUSTRATIVE EXAMPLE CASE SHOWN ON THE DRAFT DIAGRAM, REPRESENT DRAFTS AT THE FWD AND AFT DRAFT MARKS OF 20 AND 25 FEET RESPECTIVELY.



INTERNATIONAL FREEBOARD, DRAFT AND DEADWEIGHT DATA

LOADLINE MARK	FREEBOARD FEET	DRAFT BASELINE FEET	DRAFT KEEL FEET	DISPLACEMENT LONG TONS	DEADWEIGHT LONG TONS
SUMMER (SALT WATER)	22' - 1¼"	38' - 0 1/8"	38' - 1¼"	57,033.7	40,515.4
FRESH WATER	21' - 4½"	38' - 8 7/8"	38' - 10"	58,444.8	41,926.4
TROPICAL (SALT WATER)	21' - 3 3/4"	38' - 9 5/8"	38' - 10 3/4"	58,580.8	42,062.5
TROPICAL (FRESH WATER)	20' - 7"	39' - 6 3/8"	39' - 7 ½"	57,999.1	43,480.8
WINTER (SALT WATER)	22' - 10 3/4"	37' - 2 5/8"	37' - 3 3/4"	55,504.0	38,483.7
FRESH WATER ALLOWANCE	0' - 8 3/4"	———	———	———	———

DEPTH MAIN DECK AT SIDE MOLDED AMIDSHIPS ________ 60' - 0"
THICKNESS OF MAIN DECK PLATE AMIDSHIPS ________ 0' - 1 3/8"
DEPTH TO TOP OF MAIN DECK PLATE AMIDSHIPS ________ 60' - 1 3/8"
BOTTOM OF KEEL BELOW MOLDED BASELINE ________ 0' - 1 1/16"

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OPERATING INSTRUCTIONS

1. Cross connection transfer valves between all Port and STBD doublebottom and deep tank pairs shall be kept closed at all times except when actually being utilized for the designated function.
2. Not more than one pair of tanks assigned to each type of consumable liquid on board the vessel shall be slack at one time.
3. Bilges shall be kept pumped to minimum content at all times.
4. Tanks required to be ballasted with salt water shall be immediately filled and carried, pressed up at all time while such ballast is necessary. When not ballasted, such tanks shall be kept pumped to minimum content at all times.
5. During the ballasting, a reduction in the vessel's GM, due to slack free surface, will occur until the tank is pressed up. This temporary loss in GM (in.feet) is equal to the salt water free surface of the tank divided by the vessel's displacement (in long tons) at that particular moment. (See pages 6 to 7 for free surface values).
6. The available GM must always be greater than the required GM obtained from the curve on page 11.
7. After the stability calculations have been made for an actual or an anticipated loading case, the vessel must then be checked to insure that the loading does not exceed the maximum allowable bending or shearing stresses. A check for bending moment may be made by using reference #11. To check the bending and shearing stresses, use the loading computer supplied to the vessel.
8. Flume tank free surface is given on page 12. After determining liquid level in the tanks from the operating instruction manual, the free surface moment should be entered on the loading forms.
9. Ballast tanks should be used dry or pressed up. If ballast is carried slack, slack free surface values are to be taken from page 6 and should be entered on the loading forms.
10. For available GM calculation purposes, the maximum free surface moment for each tank should be used from page 6 & 7. The GM correction for liquid free surface should be taken into account, not only for any slack tanks, but also, for any tank filled with a consumable which may be depleted in route. A free surface correction need not be made for any tank which is pressed up and will remain pressed up throughout the entire route.

INSTRUCTIONS FOR DETERMINING DRAFT & GM - SHORT FORM

1. This short form method provides a simplified means of determining draft & GM at various conditions of vessel loading.
2. Free surface, assumed in the basic ship GM calculation for the short form:

TANK	FREE SURFACE	REMARKS
Distilled Water Tanks P&S	467.6	Slack Max.
Potable Water Tanks P&S	275.6	Slack Max.
Fuel Oil Storage Tanks P&S	3045.4	98%-5° Heel
#3 Wing Fuel Oil Tanks P&S	1099.2	Slack Max.
#6 Wing Fuel Oil Tanks P&S	10,930.4	Slack Max.
Diesel Oil Tanks P&S	150.4	98%-5° Heel
Diesel Oil Day Tank P	0.1	98%-5° Heel
Lube Oil Storage Tank P	87.5	98%-5° Heel
Lube Oil Storage DSL Gen P	0.3	98%-5° Heel
Lube Oil Gravity S	8.0	98%-5° Heel
Lube Oil Settling P	46.1	Slack Max.
Main Lube Oil Tank	61.3	Slack Max.
Ballast Tanks	-----	See Note 3
Flume Tanks	-----	See Note 4

3. Ballasted tanks should be used dry or pressed up. If ballast is carried slack, slack free surface valves are to be taken from page 6 and a free surface correction to be made as shown on page 19, and entered on stability calculations summary form, page 30.
4. Flume tank free surface is given on page 12. After determining liquid level in the tanks from the operating instruction manual; the free surface calculation is to be made as shown on page 19 and should be entered on the stability calculation summary from, page 20.
5. The basic ship for the short form calculations includes the following:

Lightship	16,518.3 L.Tons
Crew & Effects	25.0 L.Tons
70% Consummables & Stores	70.0 L.Tons
Total	16,613.3 L.Tons

6. The basic ship GM scale on page 21 is constructed, utilizing the following formula:
   GM Basic = (KM) - (KG Basic Ship) + (Free Surface Moments) / Displacement
   Note: The total free surface moment is equal to the summation of the free surface moments for each of the tanks listed in note 2, with the exception of the ballast and flume tanks which are taken into account separately on the stability calculation summary from, page 30.
7. After totaling various items of vessel loading as indicated by the stability calculation form, the vessel's draft and available GM may be determined in a simple, direct and accurate manner.

INSTRUCTIONS FOR DETERMINING DRAFT & GM - SHORT FORM (CONT'D)

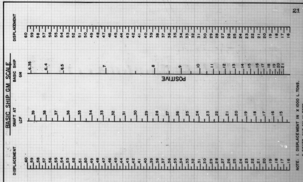
8. The tabular basic ship GM on page 21 includes an allowance for slack tank free surface. For each type of consummable liquid. See note 2 for table of assumed free surface present. No additional free surface correction need be made when using this form unless additional tanks are slack. Gm reduction (due to free surface) = (free surface moment) / total displacement.
   Note: The total displacement computed on page 30 will not necessarily agree exactly with the displacement from its LCF draft because of minor variations between actual and assumed values of items contained in basic ship displacement.
9. An available GM less than the required GM, indicates insufficient stability. Such a condition may be corrected by ballasting tanks in any zone having positive stability factor.
10. Enter the long tons of cargo and liquids carried in tanks and compartments in the spaces provided for each in the columns of the stability calculation form page 31. This breaks down the loading of the ship into the appropriate zones.
11. Add the tons in each zone and then enter the total for each zone in table I page 30.
12. Add the tons in the zones in table II to obtain the deadweight and then enter this value in the appropriate space in table II page 30.
13. Add the entries in table II to obtain the displacement.
14. On page 21, lay a transparent straight edge across the displacement in the right column and in the left column, read off the LCF draft (which is entered in table III page 30) and the basic ship GM, which is entered in the appropriate space in table III page 30.
15. Now that the displacement is established, the stability factors in table I can be entered. Pages 22 through 29 furnish the stability factors for each zone. For example on page 22 (which applies to zone I only), lay a transparent straight edge across the Load In Tons (left hand scale) and across the displacement (canted scale). At the intersection of the right-hand scale, read the stability factor for zone 1. Enter this value in the appropriate space on table I page 30. Repeat this procedure for the remaining zones.
16. Calculate the algebraic sum of the stability factors in table I page 30. This is the net stability factor. Enter this value in the appropriate space in table IV page 28.
17. The algerbraic sum of the first two entries in table IV page 30 is the uncorrected GM. Subtraction of the free surface correction gives the available GM.

INSTRUCTIONS FOR DETERMINING DRAFTS & TRIM - SHORT FORM

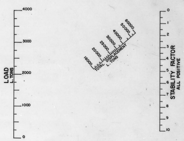
1. Enter ullages, sounding, type of ballast in the remarks column.
2. Enter weights of each item in the weight column in Long Tons.
3. Compute longitudinal moments (weights multiplied by LCG) and enter in the longitudinal moment column.
4. Sum up the weights and moments.
5. The summation of the weights gives the total displacement.
6. The summation of the moments divided by the summation of the weights gives the vessels LCG.
7. From the hydrostatic curves, sheet 10 or 15 at the displacement figure obtained, read off values of LCF draft, MT1", LCB and LCF about midships. Values for LCB and LCF must be converted to distances from the forward perpenducular by adding 398.67 feet, LCB or LCF forward of ⊗ is minus and AFT of ⊗ is positive. Enter on the draft and trim calculation form page 32.
8. In the calculation of drafts, the sign (+AFT/-FWD) of the trim must be observed. The following data may be used to determine drafts:

   Trim = DISPL. (LCG-LCB)/ 12x MT1" = Feet (+AFT/-FWD)
   Draft at FP : D_{FP} = D_{LCF} - (Trim x LCF/ 797.33)
   Draft at AP : DAP = D_{FP} + Trim
   Draft at FWD Marks: D_{FM} = D_{FP} + (Trim x 6/797.33)
   Draft at ⊗ Marks: $D_{⊗M}$ = D_{FP} + (Trim x 398.67/797.33)
   Draft at AFT Marks: D_{AM} = D_{FP} + (Trim x 711.67/797.33)

Note: If the LCG is further AFT than the LCB (positive trim), the vessel will trim by the stern. If the LCG is further FWD than the LCB (negative trim), the vessel will trim by the head.



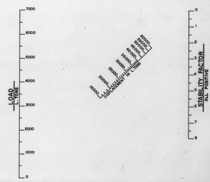
ZONE 1



ITEMS INCLUDED IN ZONE 1

1. #2 DB SW Ballast Tks P&S
2. #3 DB SW Ballast Tks P&S
3. #4 DB SW Ballast Tks P&S

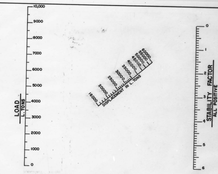
ZONE 2



ITEMS INCLUDED IN ZONE 2

1. #1 SW Ballast Tk
2. LIGHTER 1C-1
3. LIGHTERS 2A-1,2B-1,2C-1
4. LIGHTERS 3A-1,3B-1
5. LIGHTERS 4A-1,4B-1,4C-1
6. DIESEL OIL STORAGE TKS P&S
7. MAIN LUBE OIL SUMP TK

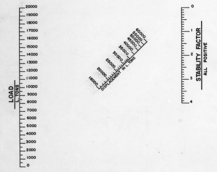
ZONE 3



ITEMS INCLUDED IN ZONE 3

1. FOREPEAK SW BALLAST TK
2. FWD SW BALLAST TK
3. FUEL OIL STORAGE TKS P&S
4. LIGHTER 1B-2
5. LIGHTER 1C-2
6. LIGHTERS 2A-2, 2B-2, 2C-2
7. LIGHTERS 3A-2,3B-2
8. LIGHTERS 4A-2,4B-2,4C-2
9. LIGHTERS 6A-2,6B-2
10. POTABLE WATER TKS P&S

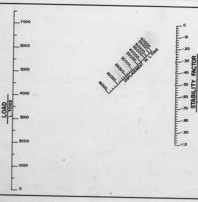
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ZONE 4

ITEMS INCLUDED IN ZONE 4

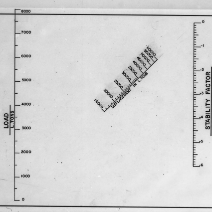
1. #2 WING SW BALLAST TKS P&S
2. #2A WING SW BALLAST TKS P&S
3. #3 WING FUEL OIL TKS P&S
4. #4 WING SW BALLAST TKS P&S
5. #6 WING FUEL OIL TKS P&S
6. #7 SW BALLAST TKS P&S
7. AFT SW BALLAST TKS P&S
8. FWD FLUME TK



ZONE 5

ITEMS INCLUDED IN ZONE 5

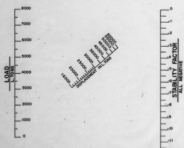
1. LIGHTER 1A-3
2. LIGHTER 1B-3
3. LIGHTERS 1C-3
4. LIGHTERS 2A-3,2B-3,2C-3
5. LIGHTERS 3A-3,3B-3,5A-3
6. LIGHTERS 4A-3,4B-3,4C-3
7. LIGHTERS 6A-3,6B-3,7A-3,7B-3



ZONE 6

ITEMS INCLUDED IN ZONE 6

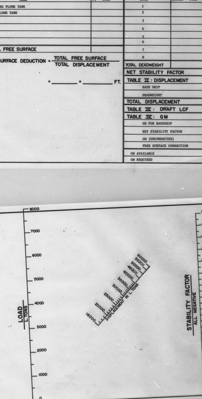
1. LIGHTER 1A-4
2. LIGHTER 1B-4
3. LIGHTER 1C-4
4. LIGHTERS 2A-4,2B-4,2C-4
5. LIGHTERS 3A-4,3B-4,5A-4
6. LIGHTERS 4A-4,4B-4,4C-4
7. LIGHTERS 6A-4,6B-4,7A-4,7B-4
8. DISTILLED WATER TKS P&S
9. LUBE OIL TKS



ZONE 7

ITEM INCLUDED IN ZONE 7

1. LIGHTERS 1A-5, 1B-5, 1C-5
2. LIGHTERS 2A-5,2B-5,2C-5
3. LIGHTERS 3A-5,3B-5,5A-5,ER-5
4. LIGHTERS 4A-5,4B-5,4C-5,SC-5
5. LIGHTERS 6A-5,6B-5,7A-5,7B-5



ZONE 8

ITEM INCLUDED IN ZONE 8

1. LIGHTERS 1A-6, 1B-6, 1C-6
2. LIGHTERS 2A-6,2B-6,2C-6
3. LIGHTERS 3A-6,3B-6,5A-6,ER-6
4. LIGHTERS 4A-6,4B-6,4C-6,SC-6
5. LIGHTERS 6A-6,6B-6,7A-6,7B-6

STABILITY CALCULATION SUMMARY FORM – SHORT FORM

FREE SURFACE DEDUCTION

TANK	FREE SURFACE FT – TONS
FORWARD FLUME TANK	
AFT FLUME TANK	
TOTAL FREE SURFACE	

$$\text{FREE SURFACE DEDUCTION} = \frac{\text{TOTAL FREE SURFACE}}{\text{TOTAL DISPLACEMENT}}$$

= ________ = ________ FT.

TABLE I: DEADWEIGHT

ZONE	WEIGHT – TONS	STABILITY FACTOR	
1		+	
2		+	
3		+	
4		+	
5			-
6			-
7			-
8			-
TOTAL DEADWEIGHT			
NET STABILITY FACTOR			

TABLE II: DISPLACEMENT	
BASE SHIP	16,613.3
DEADWEIGHT	
TOTAL DISPLACEMENT	
TABLE III: DRAFT LCF	
TABLE IV: GM	
GM FOR BASESHIP	
NET STABILITY FACTOR	
GM (UNCORRECTED)	
FREE SURFACE CORRECTION	-
GM AVAILABLE	
GM REQUIRED	

STABILITY CALCULATION LOADING FORM – SHORT FORM

ZONE 1 ITEM	WEIGHT-L.TONS
#2 DB SW BALLAST TKS P&S	
#3 DB SW BALLAST TKS P&S	
#4 DB SW BALLAST TKS P&S	
TOTAL ZONE 1	

ZONE 2 ITEM	WEIGHT-L.TONS
#1 SW BALLAST TK	
LIGHTER 1C-1	
LIGHTERS 2A-1, 2B-1, 2C-1	
LIGHTERS 3A-1, 3B-1	
LIGHTERS 4A-1, 4B-1, 4C-1	
DIESEL OIL STORAGE TKS P&S	
MAIN LUBE OIL SUMP TK	
AFT FLUME TK	
TOTAL ZONE 2	

ZONE 3 ITEM	WEIGHT-L.TONS
FOREPEAK SW BALLAST TK	
FWD SW BALLAST TK	
FUEL OIL STORAGE TKS P&S	
LIGHTER 1B-2	
LIGHTERS 1C-2	
LIGHTERS 2A-2, 2B-2, 2C-2	
LIGHTERS 3A-2, 3B-2	
LIGHTERS 4A-2, 4B-2, 4C-2	
LIGHTERS 6A-2, 6B-2	
POTABLE WATER TKS P&S	
TOTAL ZONE 3	

ZONE 4 ITEM	WEIGHT-L.TONS
#2 WING SW BALLAST TKS P&S	
#2A WING SW BALLAST TKS P&S	
#3 WING FUEL OIL TKS P&S	
#4 WING SW BALLAST TKS P&S	
#6 WING FUEL OIL TKS P&S	
#7 SW BALLAST TKS P&S	
AFT SW BALLAST TKS P&S	
FWD FLUME TK	
TOTAL ZONE 4	

ZONE 5 ITEM	WEIGHT-L.TONS
LIGHTER 1A-3	
LIGHTER 1B-3	
LIGHTER 1C-3	
LIGHTERS 2A-3, 2B-3, 2C-3	
LIGHTERS 3A-3, 3B-3, 5A-3	
LIGHTERS 4A-3, 4B-3, 4C-3	
LIGHTERS 6A-3, 6B-3, 7A-3, 7B-3	
TOTAL ZONE 5	

ZONE 6 ITEM	WEIGHT-L.TONS
LIGHTER 1A-4	
LIGHTER 1B-4	
LIGHTER 1C-4	
LIGHTERS 2A-4, 2B-4, 2C-4	
LIGHTERS 3A-4, 3B-4, 5A-4	
LIGHTERS 4A-4, 4B-4, 4C-4	
LIGHTERS 6A-4, 6B-4, 7A-4, 7B-4	
DISTILLED WATER TKS P&S	
LUBE OIL TANKS	
TOTAL ZONE 6	

ZONE 7 — LIGHTERS ON MAIN DECK ITEM	WEIGHT-L.TONS
LIGHTERS 1A-5, 1B-5, 1C-5	
LIGHTERS 2A-5, 2B-5, 2C-5	
LIGHTERS 3A-5, 3B-5, 5A-5, ER-5	
LIGHTERS 4A-5, 4B-5, 4C-5, SC-5	
LIGHTERS 6A-5, 6B-5, 7A-5, 7B-5	
TOTAL ZONE 7 LGTRS. MN. DK.	

ZONE 8 — LIGHTERS ON MAIN DECK ITEM	WEIGHT-L.TONS
LIGHTERS 1A-6, 1B-6, 1C-6	
LIGHTERS 2A-6, 2B-6, 2C-6	
LIGHTERS 3A-6, 3B-6, 5A-6, ER-6	
LIGHTERS 4A-6, 4B-6, 4C-6, SC-6	
LIGHTERS 6A-6, 6B-6, 7A-6, 7B-6	
TOTAL ZONE 8 LGTRS. MN. DK.	

DRAFT AND TRIM CALCULATION FORM – SHORT FORM

CONDITION: BY: DATE:

ITEM	REMARKS	WEIGHT	L.C.G.	LONG. MOMT.
FOREPEAK SW BALLAST TK			21.18	
FWD SW BALLAST TK			70.79	
#1 SW BALLAST TK			173.54	
#2 DB SW BALLAST TKS P&S			321.63	
#3 DB SW BALLAST TKS P&S			411.00	
#4 DB SW BALLAST TKS P&S			499.74	
#2 WING SW BALLAST TKS P&S			302.30	
#2A WING SW BALLAST TKS P&S			374.36	
#4 WING SW BALLAST TKS P&S			520.73	
#7 SW BALLAST TKS P&S			736.95	
AFT SW BALLAST TKS P&S			793.22	
DISTILLED WATER TKS P&S			613.13	
POTABLE WATER TKS P&S			610.91	
FWD FLUME TK			173.31	
AFT FLUME TK			209.97	
500 GALLON SEWAGE S			591.16	
BILGE SLOP			572.29	
FUEL OIL STORAGE TKS P&S			127.80	
#3 WING FUEL OIL TKS P&S			447.56	
#6 WING FULE OIL TKS P&S			663.83	
DIESEL OIL STORAGE TKS P&S			564.83	
400 GAL EMER DSL GEN DAY TK P			574.56	
LUBE OIL STORAGE TK P			590.66	
LUBE OIL STORAGE DSL GEN TK P			590.66	
LUBE OIL GRAVITY TK S			590.66	
LUBE OIL SETTLING TK P			590.47	
MAIN LUBE OIL SUMP			618.53	
LIGHTERS HOLD 1A			172.67	
LIGHTERS HOLD 1B			209.33	
LIGHTERS HOLD 1C			246.00	
LIGHTERS HOLD 2A			282.67	
LIGHTERS HOLD 2B			319.33	
LIGHTERS HOLD 2C			356.00	
LIGHTERS HOLD 3A			392.67	
LIGHTERS HOLD 3B			429.34	

ITEM	REMARKS	WEIGHT	L.C.G.	LONG MOMT.
LIGHTERS HOLD 4A			466.01	
LIGHTERS HOLD 4B			502.67	
LIGHTERS HOLD 4C			539.34	
LIGHTERS HOLD 5A			612.67	
LIGHTERS HOLD 6A			649.34	
LIGHTERS HOLD 6B			686.01	
LIGHTERS HOLD 7A			722.67	
LIGHTERS HOLD 7B			759.34	
LIGHTERS HATCH ER			575.99	
LIGHTERS HATCH SC			795.99	
LIGHTSHIP	16,518.3		432.68	
CREW AND EFFECTS			95.00	
CONS AND STORES			95.00	
TOTAL DISPLACEMENT				

DRAFT LCF ________ FT   DRAFT FP ________ FT
LCG ________ FT   DRAFT AP ________ FT
LCB ________ FT   DRAFT FM ________ FT
MT1" ________ FT-TONS   DRAFT MM ________ FT
TRIM (+AFT/-FWD) ________ FT   DRAFT AM ________ FT
LCF ________ FT

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MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 5

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INSTRUCTIONS FOR DETERMINING DRAFTS AND GM - LONG FORM

1. The accompanying data has been prepared to permit a quick and reliable estimate of the drafts, trim and stability of the vessel under various conditions of loading.
2. The data contained herein, in conjunction with the hydrostatic data furnished the vessel, will provide the master with sufficient information to determine the available GM and freeboard for any other condition of loading or operation of the vessel.
3. The sample loading conditions presented herin portray possible conditions of loading. Actual loading cases will of course have different levels of tankage and cargo.
4. In calculating the vessel's trim and stability for any condition of loading, the detailed weights in each category of loading such as cargo, fuel oil, diesel oil, lube oil, fresh water and ballast are entered in the loading form pages 35-45. In addition, the vertical center of gravity and free surface moment (if applicable) are entered. The vertical center of gravity for a partially filled tank may be found in reference #2 or 3. Longitudinal and transverse centers are provided on the form. If a tank is not pressed up, enter the free surface moment obtained from pages 6 to 7.
5. Each category is then summed to obtain weight, vertical moment, longitudinal moment, transverse moment and free surface. (Moment is the product of weight and center of gravity distance).
6. Enter the loading form summary, page 39, with each category's summation of weight, moments, and free surface. The weight and moments for lightship are provided. The weights and moments for crew & provisions must then be entered.
7. Sum the weights, moments and free surface for all categories of loading. The summation of the weights is the vessel's displacement. Dividing each moment by the displacement equals the center of gravity with respect to the three reference lines (forward perpendicular, baseline, centerline).
8. From the table of hydrostatic properties, page 10, enter the graph at the vessel's displacement and read off the values listed at the bottom of the loading form summary, page 39. Note that the values read from the graph for LCB and LCF must be converted to distances from the forward perpendicular by adding 398.67 feet.
9. The vertical center of gravity is the sum of the VCG above baseline plus the keel plate thickness.
10. The free surface correction accounts for the virtual rise in the center of gravity due to internal free fluid.
11. The available GM is then equal to KM minus the sum of KG plus free surface. The available GM must always be greater than the required GM obtained from the curve on page 11.
12. The trim of the vessel, over the perpendiculars, is a function of the distance between the LCG and LCB, the displacement, and the moment to trim one inch. If the LCG is further AFT than the LCB (positive trim), the trim will be by the stern. If the LCG is further forward than the LCB (negative trim), the trim will be by the head. Also, note that the MT1" is based upon an assumed KG of 39 feet. If the calculated KG is not 39 feet, or close thereto, and a more accurate determination of trim is required, the actual MT1" may be found by the formula: MT1" = (displacement x GM_L / 12 x 797.33). To find the value of GM_L, enter the "hydrostatic curves" reference 4, at the appropriate draft and find KM_L minus KG.
13. The list of the vessel in degrees is equal to transverse moment x 57.3 divided by displacement times GM_A. Also list of the vessel in degrees is equal to the transverse moment divided by the ML1°. A positive list is to port. If it is desired to know the difference in drafts at midship, divide the transverse moment by the ML1". Note that this quotient is the total difference in port and starboard midship drafts in inches.
14. In the calculation of drafts, the sign (+AFT/-FWD) of the trim must be observed. The following data may be used to determine drafts and stability.

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INSTRUCTIONS FOR DETERMINING DRAFTS AND GM - LONG FORM : (CONT'D)

FROM TABLE OF HYDROSTATIC PROPERTIES:

Draft At LCF = _____ FT
LCB = LCB ABT ⌀ + 398.67 = _____ FT
LCF = LCF ABT ⌀ + 398.67 = _____ FT
MT1" = _____ FT-TONS/IN
KM_T = _____ FT
TPI = _____ TONS/IN

STABILITY:

VCG Above Baseline = _____ FT
Keel Plate Thickness = + 0.09 FT
KG= _____ FT
Free Surface Correction:
FS= Free Surface Moment/DISPL = _____ FT
Available GM : GM_A = KM - (KG+FS) = _____ FT
Required GM : GM_R (From Curve Pg. 11) = _____ FT

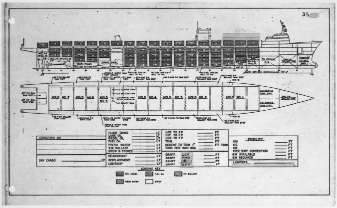
TRIM AND LIST:

Trim = DISPL (LCG-LCB) / 12 x MT1" = _____ FT(+AFT/-FWD)
List = Transverse Moment x 57.3/DISPL x GM_A = _____ ° (+PORT/-STBD)
(Accurate Up To Answers of 7° Heel)

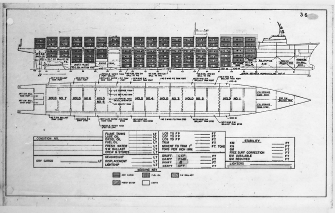
DRAFTS:

Draft At FP : $D_{FP} = D_{LCF}$ - (TRIM x LCF/797.33) =
Draft At AP : $D_{AP} = D_{FP}$ + TRIM =
Draft At FWD Marks: $D_{FM} = D_{FP}$ + (TRIM x 6/797.33) =
Draft At ⌀ Marks : $D_{⌀M} = D_{FP}$ + (Trim x 398.67/797.33) =
Draft At AFT Marks: $D_{AM} = D_{FP}$ + (Trim x 711.67/797.33) =

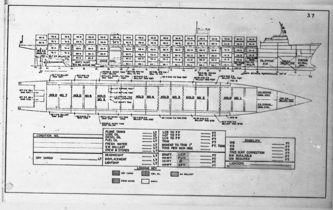
35



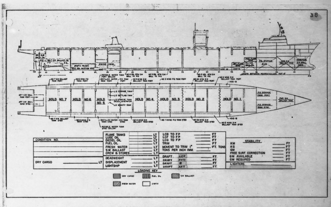
36



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LOADING FORM SUMMARY

CONDITION: BY: DATE:

ITEM	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP	16,518.27	38.94	643,201	432.68	7,147,078	- 0.11	- 1,768.7	____	
CREW & EFFECTS		70.00		95.00		- 0.02		____	
CONSUMABLES & STORES		56.00		95.00		- 0.02		____	
SW BALLAST									
FRESH WATER									
FLUMES									
FUEL OIL									
DIESEL OIL									
LUBE OIL									
SANITARY WASTE									
LIGHTERS HOLD 1									
LIGHTERS HOLDS 2 & 3									
LIGHTERS HOLDS 4, ENG. RM., & 5									
LIGHTERS HOLDS 6,7, & STG. CR.									
[illegible]									
[illegible]									
[illegible]									
[illegible]									
TOTAL DISPLACEMENT									

DRAFT AT LCF _____ FT.
LCG AFT FP _____ FT.
LCB AFT FP _____ FT.
TRIM LEVER (+AFT/-FWD) _____ FT.
MT1" _____ FT-TONS
TRIM (+AFT/-FWD) _____ FT.

LCF AFT FP _____ FT
DRAFT @ FP _____ FT.
DRAFT @ AP _____ FT.
DRAFT @ FWD D.M. _____ FT.
DRAFT @ ⌀ D.M. _____ FT.
DRAFT @ AFT D.M. _____ FT.
TPI _____ TONS

KM_t _____ FT.
KG ABV. KEEL _____ FT.
GM _____ FT.
FS CORRN _____ FT.
GM AVAILABLE _____ FT.
GM REQUIRED _____ FT.
HEEL (+PORT/-STBD) _____ DEGREES

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LOADING FORM

CONDITION: BY: DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.- TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST					21.18		- 0.02			
FWD SW BALLAST					70.79		0			
#1 SW BALLAST					173.54		0			
#2 DB SW BALLAST P					321.63		+ 20.98			
#2 DB SW BALLAST S					321.63		- 20.98			
#2 WING SW BALLAST P					302.30		+ 42.29			
#2 WING SW BALLAST S					302.30		- 42.29			
#2A WING SW BALLAST P					374.36		+ 42.89			
#2A WING SW BALLAST S					374.36		- 42.89			
#3 DB SW BALLAST P					411.00		+ 22.07			
#3 DB SW BALLAST S					411.00		- 22.07			
#4 DB SW BALLAST P					499.74		+ 20.74			
#4 DB SW BALLAST S					499.74		- 20.74			
#4 WING SW BALLAST P					520.73		+ 42.64			
#4 WING SW BALLAST S					520.73		- 42.64			
#7 SW BALLAST P					736.77		+ 22.48			
#7 SW BALLAST S					737.18		- 30.53			
AFT SW BALLAST P					793.22		+ 20.16			
AFT SW BALLAST S					793.22		- 20.16			
TOTAL SW BALLAST										
FRESH WATER TANKS										
DISTILLED WATER P					613.13		+ 43.77			
DISTILLED WATER S					613.13		- 43.77			
POTABLE WATER P					610.91		+ 40.10			
POTABLE WATER S					610.91		- 40.10			
TOTAL FRESH WATER										
PASSIVE STABILIZER TANKS										
FWD FLUME					173.31		0			
AFT FLUME					209.97		0			
TOTAL FLUMES										

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FRAME NO. 6

LOADING FORM

CONDITION: | BY: | DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P					127.80		+ 10.12			
FUEL OIL STORAGE S					127.80		- 10.12			
#3 WING FUEL OIL P					447.56		+ 42.81			
#3 WING FUEL OIL S					447.56		- 42.81			
#6 WING FUEL OIL P					663.88		+ 34.53			
#6 WING FUEL OIL S					663.78		- 33.32			
FO STORAGE OVERFLOW P					99.41		+ 16.79			
FO STORAGE OVERFLOW S					99.41		- 16.79			
#3 WING FO OVERFLOW P					414.67		+ 45.04			
#3 WING FO OVERFLOW S					414.67		- 45.04			
#6 WING FO OVERFLOW P					634.67		+ 45.01			
#6 WING FO OVERFLOW S					634.67		- 45.01			
TOTAL FUEL OIL										
DIESEL OIL TANKS										
DIESEL OIL P					564.83		+ 40.57			
DIESEL OIL S					564.83		- 40.57			
400 GAL. DSL GEN DAY P					574.56		+ 48.42			
TOTAL DIESEL OIL										
LUBE OIL TANKS										
LUBE OIL STORAGE P					590.66		+ 26.00			
LUBE OIL STORAGE DSL GEN P					590.66		+ 1.33			
LUBE OIL GRAVITY S					590.66		- 4.00			
LUBE OIL SETTLING P					590.47		- 9.83			
MAIN LUBE OIL SUMP					618.53		0			
TOTAL LUBE OIL										
SANITARY WASTE TANKS										
500 GAL. SEWAGE					591.16		- 33.18			
BILGE SLOP					572.29		0			
TOTAL SANITARY WASTE										

LOADING FORM

CONDITION: | BY: | DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3			43.00		172.67		0		
LIGHTER HOLD 1A-4			57.17		172.67		0		
LIGHTER HATCH 1A-5			74.50		172.67		0		
LIGHTER HATCH 1A-6			88.67		172.67		0		
LIGHTER HOLD 1B-2			28.50		209.33		0		
LIGHTER HOLD 1B-3			42.67		209.33		0		
LIGHTER HOLD 1B-4			56.83		209.33		0		
LIGHTER HATCH 1B-5			74.50		209.33		0		
LIGHTER HATCH 1B-6			88.67		209.33		0		
LIGHTER HOLD 1C-1			14.50		246.00		0		
LIGHTER HOLD 1C-2			28.67		246.00		0		
LIGHTER HOLD 1C-3			42.83		246.00		0		
LIGHTER HOLD 1C-4			57.00		246.00		0		
LIGHTER HATCH 1C-5			74.50		246.00		0		
LIGHTER HATCH 1C-6			88.67		246.00		0		
TOTAL LIGHTER HOLD 1									

LOADING FORM

CONDITION: | BY: | DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1			12.50		282.67		0		
LIGHTER HOLD 2A - 2			26.67		282.67		0		
LIGHTER HOLD 2A - 3			40.83		282.67		0		
LIGHTER HOLD 2A - 4			55.00		282.67		0		
LIGHTER HATCH 2A - 5			73.00		282.67		0		
LIGHTER HATCH 2A - 6			87.17		282.67		0		
LIGHTER HOLD 2B - 1			12.50		319.33		0		
LIGHTER HOLD 2B - 2			26.67		319.33		0		
LIGHTER HOLD 2B - 3			40.83		319.33		0		
LIGHTER HOLD 2B - 4			55.00		319.33		0		
LIGHTER HATCH 2B - 5			73.00		319.33		0		
LIGHTER HATCH 2B - 6			87.17		319.33		0		
LIGHTER HOLD 2C - 1			12.50		356.00		0		
LIGHTER HOLD 2C - 2			26.67		356.00		0		
LIGHTER HOLD 2C - 3			40.83		356.00		0		
LIGHTER HOLD 2C - 4			55.00		356.00		0		
LIGHTER HATCH 2C - 5			73.00		356.00		0		
LIGHTER HATCH 2C - 6			87.17		356.00		0		
LIGHTER HOLD 3A - 1			12.50		392.67		0		
LIGHTER HOLD 3A - 2			26.67		392.67		0		
LIGHTER HOLD 3A - 3			40.83		392.67		0		
LIGHTER HOLD 3A - 4			55.00		392.67		0		
LIGHTER HATCH 3A - 5			73.00		392.67		0		
LIGHTER HATCH 3A - 6			87.17		392.67		0		
LIGHTER HOLD 3B - 1			12.50		429.34		0		
LIGHTER HOLD 3B - 2			26.67		429.34		0		
LIGHTER HOLD 3B - 3			40.83		429.34		0		
LIGHTER HOLD 3B - 4			55.00		429.34		0		
LIGHTER HATCH 3B - 5			73.00		429.34		0		
LIGHTER HATCH 3B - 6			87.17		429.34		0		
TOTAL LIGHTERS HOLD 2 & 3									

LOADING FORM

CONDITION: | BY: | DATE:

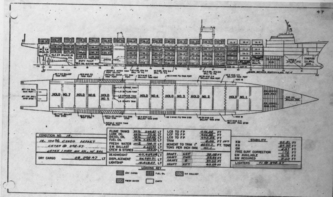
HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER HOLD 4A-1			12.50		466.01		0		
LIGHTER HOLD 4A-2			26.67		466.01		0		
LIGHTER HOLD 4A-3			40.83		466.01		0		
LIGHTER HOLD 4A-4			55.00		466.01		0		
LIGHTER HATCH 4A-5			73.00		466.01		0		
LIGHTER HATCH 4A-6			87.17		466.01		0		
LIGHTER HOLD 4B-1			12.50		502.67		0		
LIGHTER HOLD 4B-2			26.67		502.67		0		
LIGHTER HOLD 4B-3			40.83		502.67		0		
LIGHTER HOLD 4B-4			55.00		502.67		0		
LIGHTER HATCH 4B-5			73.00		502.67		0		
LIGHTER HATCH 4B-6			87.17		502.67		0		
LIGHTER HOLD 4C-1			12.50		539.34		0		
LIGHTER HOLD 4C-2			26.67		539.34		0		
LIGHTER HOLD 4C-3			40.83		539.34		0		
LIGHTER HOLD 4C-4			55.00		539.34		0		
LIGHTER HATCH 4C-5			73.00		539.34		0		
LIGHTER HATCH 4C-6			87.17		539.34		0		
LIGHTER HATCH ER-5			73.00		575.99		0		
LIGHTER HATCH ER-6			87.17		575.99		0		
LIGHTER HOLD 5A-3			41.50		612.67		0		
LIGHTER HOLD 5A-4			55.67		612.67		0		
LIGHTER HATCH 5A-5			73.00		612.67		0		
LIGHTER HATCH 5A-6			87.17		612.67		0		
TOTAL LIGHTERS HOLD 4, ENG. RM & 5									

LOADING FORM

CONDITION: | BY: | DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER HOLD 6A-2			27.00		649.34		0		
LIGHTER HOLD 6A-3			41.17		649.34		0		
LIGHTER HOLD 6A-4			55.33		649.34		0		
LIGHTER HATCH 6A-5			73.00		649.34		0		
LIGHTER HATCH 6A-6			87.17		649.34		0		
LIGHTER HOLD 6B-2			27.00		686.01		0		
LIGHTER HOLD 6B-3			41.17		686.01		0		
LIGHTER HOLD 6B-4			55.33		686.01		0		
LIGHTER HATCH 6B-5			73.00		686.01		0		
LIGHTER HATCH 6B-6			87.17		686.01		0		
LIGHTER HOLD 7A-3			41.50		722.67		0		
LIGHTER HOLD 7A-4			55.67		722.67		0		
LIGHTER HATCH 7A-5			73.00		722.67		0		
LIGHTER HATCH 7A-6			87.17		722.67		0		
LIGHTER HOLD 7B-3			41.50		759.34		0		
LIGHTER HOLD 7B-4			55.67		759.34		0		
LIGHTER HATCH 7B-5			73.00		759.34		0		
LIGHTER HATCH 7B-6			87.17		759.34		0		
LIGHTER HATCH SG-5			68.17		795.99		0		
LIGHTER HATCH SG-6			82.33		795.99		0		
TOTAL LIGHTERS HOLDS 6, 7, & STG GR									

SAMPLE CALCULATIONS



LOADING FORM SUMMARY

CONDITION: 1A. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK; W/ BAL | BY: | DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201	432.68	7,147,078	- 0.11	- 1,768.7	——	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	——	
CONSUMABLES & STORES		100.00	56.00	5,600.0	95.00	9,500.0	- 0.02	- 2.0	——	
SW BALLAST		3,889.32	3.83	10,448.4	396.18	1,879,302.0	0	0	88,883.8	
FRESH WATER	100 %	788.72	39.69	31,303.6	612.28	482,915.6	0	0	743.2	
FLUMES	85 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	
FUEL OIL	98 %	7,241.98	28.88	209,104.4	438.45	3,178,886.0	- 0.06	- 399.2	16,747.8	
DIESEL OIL	98 %	113.52	16.45	1,867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL	98 %	77.16	46.87	3,616.4	594.04	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,435.1	0	0	——	
LIGHTERS HOLDS 2 & 3	25	9,964.25	41.60	414,813.0	356.00	3,547,272.0	0	0	——	
LIGHTERS HOLDS 4, ENG. RM., & 5	19	7,572.83	45.64	345,688.1	523.90	3,967,405.5	0	0	——	
LIGHTERS HOLDS 6,7, & STG. GR.	15	5,978.55	53.43	319,457.9	705.56	4,218,333.4	0	0	——	
TOTAL DISPLACEMENT		56,987.31	39.21	2,234,540.2	440.85	25,088,465.8	- 0.03	- 1622.5	97,818.7	

DRAFT AT LCF 38.08 FT.	LCF AFT FP 456.88 FT	KM_t 45.81 FT.
LCG AFT FP 440.85 FT.	DRAFT @ FP 33.50 FT.	KG ABV. KEEL 39.30 FT.
LCB AFT FP 426.28 FT.	DRAFT @ AP 41.50 FT.	GM 6.51 FT.
TRIM LEVER (+AFT/-FWD) 13.97 FT.	DRAFT @ FWD D.M. 33.56 FT.	FS CORRN 1.72 FT.
MT1" 8297.7 FT-TONS	DRAFT @ D.M. 37.50 FT.	GM AVAILABLE 4.79 FT.
TRIM (+AFT/-FWD) 8.00 FT.	DRAFT @ AFT D.M. 40.64 FT.	GM REQUIRED 2.60 FT.
	TPI 161.1 TONS	HEEL (+PORT/-STBD) 0.63 DEGREES

RED. 8X DATE 7-81
MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 7

LOADING FORM

CONDITION: 1A. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.- TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,457.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,457.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P		0			302.30		+ 42.29			
#2 WING SW BALLAST S		0			302.30		- 42.29			
#2A WING SW BALLAST P		0			374.36		+ 42.89			
#2A WING SW BALLAST S		0			374.36		- 42.89			
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.8	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.8	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P	63 %	426.88	2.33	994.6	499.74	213,329.0	+ 20.74	+ 8,853.5	19,111.9	
#4 DB SW BALLAST S	63 %	426.88	2.33	994.6	499.74	213,329.0	- 20.74	- 8,853.5	19,111.9	
#4 WING SW BALLAST P		0			520.73		+ 42.64			
#4 WING SW BALLAST S		0			520.73		- 42.64			
#7 SW BALLAST P		0			736.77		+ 22.48			
#7 SW BALLAST S		0			737.18		- 30.53			
AFT SW BALLAST P		0			793.22		+ 20.16			
AFT SW BALLAST S		0			793.22		- 20.16			
TOTAL SW BALLAST		3,229.32	3.23	10,442.4	396.15	1,279,302.0	0	0	38,223.8	
FRESH WATER TANKS										
DISTILLED WATER P	100 %	242.93	47.58	11,558.6	613.13	148,947.7	+ 43.77	+ 10,633.0	233.8	
DISTILLED WATER S	100 %	242.93	47.58	11,558.6	613.13	148,947.7	- 43.77	- 10,633.0	233.8	
POTABLE WATER P	100 %	151.43	27.03	4,093.2	610.91	92,510.1	+ 40.10	+ 6,072.3	137.8	
POTABLE WATER S	100 %	151.43	27.03	4,093.2	610.91	92,510.1	- 40.10	- 6,072.3	137.8	
TOTAL FRESH WATER	100 %	788.72	39.69	31,303.6	612.28	482,915.6	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	39 %	268.16	28.01	7,511.3	173.31	46,474.8	0	0	20,804.0	
AFT FLUME	33 %	326.71	10.61	3,466.2	209.97	68,599.3	0	0	20,943.0	
TOTAL FLUMES	35 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	

LOADING FORM

CONDITION: 1A. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	98 %	994.24	20.79	20,670.5	127.80	127,063.9	+ 10.12	+ 10,061.7	2,358.8	
FUEL OIL STORAGE S	98 %	994.24	20.79	20,670.5	127.80	127,063.9	- 10.12	- 10,061.7	2,358.8	
#3 WING FUEL OIL P	98 %	1300.85	33.07	43,019.1	447.56	582,208.4	+ 42.81	+ 55,689.4	549.6	
#3 WING FUEL OIL S	98 %	1300.85	33.07	43,019.1	447.56	582,208.4	- 42.81	- 55,689.4	549.6	
#6 WING FUEL OIL P	98 %	1296.37	31.23	40,485.6	663.88	860,634.1	+ 34.53	+ 44,763.7	4,458.3	
#6 WING FUEL OIL S	98 %	1355.43	30.47	41,300.0	663.78	899,702.3	- 33.32	- 45,162.9	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	98 %	7241.98	28.88	209,164.4	438.95	3,178,886.0	- 0.06	- 399.8	16,747.8	
DIESEL OIL TANKS										
DIESEL OIL P	98 %	56.13	15.82	888.0	564.83	31,703.9	+ 40.57	+ 2277.2	75.8	
DIESEL OIL S	98 %	56.13	15.82	888.0	564.83	31,703.9	- 40.57	- 2277.2	75.8	
400 GAL. DSL GEN DAY P	98 %	1.26	72.93	91.9	574.56	724.0	+ 48.42	+ 61.0	0.1	
TOTAL DIESEL OIL	98 %	113.52	16.45	1867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	98 %	28.43	51.88	1475.0	590.66	16,792.5	+ 26.00	+ 739.8	91.3	
LUBE OIL STORAGE DSL GEN P	98 %	4.32	51.87	218.9	590.66	2,492.6	+ 1.33	+ 5.6	0.3	
LUBE OIL GRAVITY S	98 %	14.80	52.62	778.8	590.66	8,741.8	- 4.00	- 59.2	8.0	
LUBE OIL SETTLING P	98 %	20.21	52.28	1056.6	590.47	11,933.4	- 9.83	- 198.7	46.1	
MAIN LUBE OIL SUMP	98 %	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	98 %	77.16	46.87	3616.4	594.04	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM

CONDITION: 1A. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN. DK., W/ BAL — BY: — DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	398.57	43.00	17,138.5	172.67	68,821.1	0	0	
LIGHTER HOLD 1A-4	1	398.57	57.17	22,786.3	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-5	1	398.57	74.50	29,693.5	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-6		0	88.67	0	172.67	0	0	0	
LIGHTER HOLD 1B-2	1	398.57	28.50	11,359.3	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-3	1	398.57	42.67	17,007.0	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-4	1	398.57	56.83	22,650.7	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-5	1	398.57	74.50	29,693.5	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-6		0	88.67	0	209.33	0	0	0	
LIGHTER HOLD 1C-1	1	398.57	14.50	5,779.3	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-2	1	398.57	28.67	11,427.0	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-3	1	398.57	42.83	17,070.8	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-4	1	398.57	57.00	22,718.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-5	1	398.57	74.50	29,693.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-6		0	88.67	0	246.00	0	0	0	
TOTAL LIGHTER HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,428.1	0	0	

LOADING FORM

CONDITION: 1A. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	398.57	12.50	4,982.1	282.67	118,663.8	0	0	
LIGHTER HOLD 2A - 2	1	398.57	26.67	10,629.9	282.67	118,663.8	0	0	
LIGHTER HOLD 2A - 3	1	398.57	40.83	16,273.6	282.67	118,663.8	0	0	
LIGHTER HOLD 2A - 4	1	398.57	55.00	21,921.4	282.67	118,663.8	0	0	
LIGHTER HATCH 2A - 5	1	398.57	73.00	29,095.6	282.67	118,663.8	0	0	
LIGHTER HATCH 2A - 6		0	87.17		282.67		0		
LIGHTER HOLD 2B - 1	1	398.57	12.50	4,982.1	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 2	1	398.57	26.67	10,629.9	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 3	1	398.57	40.83	16,273.6	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 4	1	398.57	55.00	21,921.4	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 5	1	398.57	73.00	29,095.6	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 6		0	87.17		319.33		0		
LIGHTER HOLD 2C - 1	1	398.57	12.50	4,982.1	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 2	1	398.57	26.67	10,629.9	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 3	1	398.57	40.83	16,273.6	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 4	1	398.57	55.00	21,921.4	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 5	1	398.57	73.00	29,095.6	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 6		0	87.17		356.00		0		
LIGHTER HOLD 3A - 1	1	398.57	12.50	4,982.1	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 2	1	398.57	26.67	10,629.9	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 3	1	398.57	40.83	16,273.6	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 4	1	398.57	55.00	21,921.4	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 5	1	398.57	73.00	29,095.6	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 6		0	87.17		392.67		0		
LIGHTER HOLD 3B - 1	1	398.57	12.50	4,982.1	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 2	1	398.57	26.67	10,629.9	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 3	1	398.57	40.83	16,273.6	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 4	1	398.57	55.00	21,921.4	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 5	1	398.57	73.00	29,095.6	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 6		0	87.17		429.34		0		
TOTAL LIGHTERS HOLD 2 & 3	25	9964.25	41.60	414,513.0	356.00	3,547,292.0	0	0	

LOADING FORM

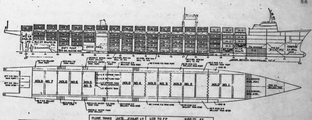
CONDITION: 1A. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	398.57	12.50	4,982.1	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-2	1	398.57	26.67	10,629.9	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-3	1	398.57	40.83	16,273.6	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-4	1	398.57	55.00	21,921.4	466.01	185,737.6	0	0	
LIGHTER	HATCH	4A-5	1	398.57	73.00	29,095.6	466.01	185,737.6	0	0	
LIGHTER	HATCH	4A-6		0	87.17		466.01		0		
LIGHTER	HOLD	4B-1	1	398.57	12.50	4,982.1	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-2	1	398.57	26.67	10,629.9	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-3	1	398.57	40.83	16,273.6	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-4	1	398.57	55.00	21,921.4	502.67	200,349.2	0	0	
LIGHTER	HATCH	4B-5	1	398.57	73.00	29,095.6	502.67	200,349.2	0	0	
LIGHTER	HATCH	4B-6		0	87.17		502.67		0		
LIGHTER	HOLD	4C-1	1	398.57	12.50	4,982.1	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-2	1	398.57	26.67	10,629.9	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-3	1	398.57	40.83	16,273.6	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-4	1	398.57	55.00	21,921.4	539.34	214,964.7	0	0	
LIGHTER	HATCH	4C-5	1	398.57	73.00	29,095.6	539.34	214,964.7	0	0	
LIGHTER	HATCH	4C-6		0	87.17		539.34		0		
LIGHTER	HATCH	ER-5	1	398.57	73.00	29,095.6	575.99	229,572.3	0	0	
LIGHTER	HATCH	ER-6		0	87.17		575.99		0		
LIGHTER	HOLD	5A-3	1	398.57	41.50	16,540.7	612.67	244,191.9	0	0	
LIGHTER	HOLD	5A-4	1	398.57	55.67	22,188.4	612.67	244,191.9	0	0	
LIGHTER	HATCH	5A-5	1	398.57	73.00	29,095.6	612.67	244,191.9	0	0	
LIGHTER	HATCH	5A-6		0	87.17		612.67		0		
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			19	7,572.83	45.64	345,628.1	523.90	3,967,405.5	0	0	

LOADING FORM

CONDITION: 1A. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	398.57	27.00	10,761.4	649.34	258,807.4	0	0	
LIGHTER	HOLD	6A-3	1	398.57	41.17	16,409.1	649.34	258,807.4	0	0	
LIGHTER	HOLD	6A-4	1	398.57	55.33	22,052.9	649.34	258,807.4	0	0	
LIGHTER	HATCH	6A-5	1	398.57	73.00	29,095.6	649.34	258,807.4	0	0	
LIGHTER	HATCH	6A-6		0	87.17		649.34		0		
LIGHTER	HOLD	6B-2	1	398.57	27.00	10,761.4	686.01	273,423.0	0	0	
LIGHTER	HOLD	6B-3	1	398.57	41.17	16,409.1	686.01	273,423.0	0	0	
LIGHTER	HOLD	6B-4	1	398.57	55.33	22,052.9	686.01	273,423.0	0	0	
LIGHTER	HATCH	6B-5	1	398.57	73.00	29,095.6	686.01	273,423.0	0	0	
LIGHTER	HATCH	6B-6		0	87.17		686.01		0		
LIGHTER	HOLD	7A-3	1	398.57	41.50	16,540.7	722.67	288,034.6	0	0	
LIGHTER	HOLD	7A-4	1	398.57	55.67	22,188.4	722.67	288,034.6	0	0	
LIGHTER	HATCH	7A-5	1	398.57	73.00	29,095.6	722.67	288,034.6	0	0	
LIGHTER	HATCH	7A-6		0	87.17		722.67		0		
LIGHTER	HOLD	7B-3	1	398.57	41.50	16,540.7	759.34	302,650.1	0	0	
LIGHTER	HOLD	7B-4	1	398.57	55.67	22,188.4	759.34	302,650.1	0	0	
LIGHTER	HATCH	7B-5	1	398.57	73.00	29,095.6	759.34	302,650.1	0	0	
LIGHTER	HATCH	7B-6		0	87.17		759.34		0		
LIGHTER	HATCH	SG-5	1	398.57	68.17	27,170.5	795.99	317,257.7	0	0	
LIGHTER	HATCH	SG-6		0	82.33		795.99		0		
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			15	5978.55	53.43	319,457.9	705.56	4,218,238.4	0	0	



CONDITION NO. 2A.
2A. 100% CARGO ARRIVAL
LGTRS @ 398.57
LGTRS 1 HIGH MN DK, W/ BAL

DRY CARGO 28,298.47 LT

FLUME TANKS	35%	594.87	LT
LUBE OIL	10%	16.86	LT
DIESEL OIL	10%	11.35	LT
FUEL OIL	33%	2,413.99	LT
FRESH WATER	10%	76.86	LT
S.W. BALLAST		3,229.32	LT
CREW & STORES		60.00	LT
DEADWEIGHT		34,703.12	LT
DISPLACEMENT		51,221.39	LT
LIGHTSHIP		16,518.27	LT

LCB TO FP	422.71	FT
LCF TO FP	457.25	FT
LCG TO FP	438.00	FT
TRIM	8.17	FT AFT
MOMENT TO TRIM 1"	7492.1	FT. TONS
TONS PER INCH IMM.	158.7	
DRAFT LCF	35.10	FT
DRAFT FWD	30.48	FT
DRAFT ⊗	34.51	FT
DRAFT AFT	37.71	FT

STABILITY

KM	46.12	FT
KG	39.55	FT
GM	6.57	FT
FREE SURF. CORRECTION	1.91	FT
GM AVAILABLE	4.66	FT
GM REQUIRED	2.72	FT

LIGHTERS 71 @ 398.57

LOADING KEY: DRY CARGO — FUEL OIL — SW BALLAST — FRESH WATER — EMPTY

LOADING FORM SUMMARY

CONDITION: 2A. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201	432.68	7,147,078	- 0.11	- 1,768.7	——	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	——	
CONSUMABLES & STORES		35.00	56.00	1,960.0	95.00	3,325.0	- 0.02	- 0.5	——	
SW BALLAST		3,229.32	3.23	10,442.4	396.15	1,279,302.0	0	0	38,223.8	
FRESH WATER	10%	76.86	31.62	2,509.0	612.88	48,284.2	0	0	743.2	
FLUMES	35%	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	
FUEL OIL	33%	2,413.99	13.84	33,415.2	438.95	1,059,628.6	- 0.06	- 133.2	16,747.2	
DIESEL OIL	10%	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL	10%	16.86	25.34	412.0	606.92	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,428.1	0	0	—	
LIGHTERS HOLDS 2 & 3	25	9,964.25	41.60	414,513.0	356.00	3,547,292.0	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	19	7,572.83	45.64	345,628.1	523.90	3,967,405.5	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	15	5,978.55	53.43	319,457.9	705.56	4,218,238.4	0	0	—	
TOTAL DISPLACEMENT		51,221.39	39.46	2,021,382.1	438.00	22,434,714.6	- 0.04	- 1,848.0	97,818.7	

DRAFT AT LCF	35.10	FT.
LCG AFT FP	438.00	FT.
LCB AFT FP	422.71	FT.
TRIM LEVER (+AFT/-FWD)	15.29	FT.
MT1"	7492.1	FT-TONS
TRIM (+AFT/-FWD)	8.17	FT.
LCF AFT FP	457.25	FT
DRAFT @ FP	30.92	FT.
DRAFT @ AP	38.69	FT.
DRAFT @ FWD D.M.	30.48	FT.
DRAFT @ ⊗ D.M.	34.51	FT.
DRAFT @ AFT D.M.	37.71	FT.
TPI	158.7	TONS
KM_t	46.12	FT.
KG ABV. KEEL	39.55	FT.
GM	6.57	FT.
FS CORRN	1.91	FT.
GM AVAILABLE	4.66	FT.
GM REQUIRED	2.72	FT.
HEEL (+PORT/-STBD)	0.44	DEGREES

RED. 8X DATE 7-81
MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 8

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LOADING FORM

CONDITION: 2A. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.- TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,457.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,457.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P		0			302.30		+ 42.29			
#2 WING SW BALLAST S		0			302.30		- 42.29			
#2A WING SW BALLAST P		0			374.36		+ 42.89			
#2A WING SW BALLAST S		0			374.36		- 42.89			
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.2	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.2	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P	63 %	426.88	2.33	994.6	499.74	213,329.0	+ 20.74	+ 8,852.5	19,111.9	
#4 DB SW BALLAST S	63 %	426.88	2.33	994.6	499.74	213,329.0	- 20.74	- 8,852.5	19,111.9	
#4 WING SW BALLAST P		0			520.73		+ 42.64			
#4 WING SW BALLAST S		0			520.73		- 42.64			
#7 SW BALLAST P		0			736.77		+ 22.48			
#7 SW BALLAST S		0			737.18		- 30.53			
AFT SW BALLAST P		0			793.22		+ 20.16			
AFT SW BALLAST S		0			793.22		- 20.16			
TOTAL SW BALLAST		3,229.32	3.03	10,442.4	396.15	1,279,302.0	0	0	38,223.8	
FRESH WATER TANKS										
DISTILLED WATER P	10 %	24.29	39.02	947.8	613.13	14,892.9	+ 43.77	+ 1,063.2	233.8	
DISTILLED WATER S	10 %	24.29	39.02	947.8	613.13	14,892.9	- 43.77	- 1,063.2	233.8	
POTABLE WATER P	10 %	15.14	20.26	306.7	610.91	9,249.2	+ 40.10	+ 607.1	137.8	
POTABLE WATER S	10 %	15.14	20.26	306.7	610.91	9,249.2	- 40.10	- 607.1	137.8	
TOTAL FRESH WATER	10 %	78.86	31.82	2,509.0	612.28	48,284.2	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	34 %	268.16	28.01	7,511.2	173.31	46,474.8	0	0	20,804.0	
AFT FLUME	33 %	326.71	10.61	3,466.4	209.97	68,599.3	0	0	20,943.0	
TOTAL FLUMES	35 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	

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LOADING FORM

CONDITION: 2A. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	33 %	331.41	9.03	2,992.6	127.80	42,354.2	+ 10.12	+ 3,353.9	2,358.8	
FUEL OIL STORAGE S	33 %	331.41	9.03	2,992.6	127.80	42,354.2	- 10.12	- 3,353.9	2,358.8	
#3 WING FUEL OIL P	33 %	433.62	16.81	7,289.2	447.56	194,071.0	+ 42.81	+ 18,563.3	549.6	
#3 WING FUEL OIL S	33 %	433.62	16.81	7,289.2	447.56	194,071.0	- 42.81	- 18,563.3	549.6	
#6 WING FUEL OIL P	33 %	432.12	14.81	6,399.7	663.88	286,875.8	+ 34.53	+ 14,921.1	4,453.3	
#6 WING FUEL OIL S	33 %	451.81	14.28	6,451.9	663.78	299,902.4	- 33.32	- 15,054.3	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	33 %	2,413.99	13.84	33,415.2	438.95	1,059,628.6	- 0.06	- 133.2	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	10 %	5.61	8.01	44.9	564.83	3,168.7	+ 40.57	+ 227.6	75.2	
DIESEL OIL S	10 %	5.61	8.01	44.9	564.83	3,168.7	- 40.57	- 227.6	75.2	
400 GAL. DSL GEN DAY P	10 %	0.13	70.81	9.2	574.56	74.7	+ 48.42	+ 6.3	0.1	
TOTAL DIESEL OIL	10 %	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	10 %	2.84	47.93	136.1	590.66	1,677.5	+ 26.00	+ 73.8	91.3	
LUBE OIL STORAGE DSL GEN P	10 %	0.42	47.93	20.1	590.66	248.1	+ 1.33	+ 0.6	0.3	
LUBE OIL GRAVITY S	10 %	1.48	48.00	71.0	590.66	874.2	- 4.00	- 5.9	8.0	
LUBE OIL SETTLING P	10 %	2.02	48.34	97.7	590.47	1,192.8	- 9.83	- 19.9	46.1	
MAIN LUBE OIL SUMP	50 %	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	10 %	16.26	25.34	412.0	606.42	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

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LOADING FORM

CONDITION: 2A. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN. DK., W/ BAL — BY: — DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	398.57	43.00	17,138.5	172.67	68,821.1	0	0	
LIGHTER HOLD 1A-4	1	398.57	57.17	22,786.3	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-5	1	398.57	74.50	29,693.5	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-6		0	88.67	0	172.67	0	0	0	
LIGHTER HOLD 1B-2	1	398.57	28.50	11,359.3	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-3	1	398.57	42.67	17,007.0	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-4	1	398.57	56.83	22,650.7	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-5	1	398.57	74.50	29,693.5	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-6		0	88.67	0	209.33	0	0	0	
LIGHTER HOLD 1C-1	1	398.57	14.50	5,779.3	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-2	1	398.57	28.67	11,427.0	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-3	1	398.57	42.83	17,070.8	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-4	1	398.57	57.00	22,718.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-5	1	398.57	74.50	29,693.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-6		0	88.67	0	246.00	0	0	0	
TOTAL LIGHTER HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,435.1	0	0	

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LOADING FORM

CONDITION: 2A. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	398.57	12.50	4,982.1	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 2	1	398.57	26.67	10,629.9	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 3	1	398.57	40.83	16,273.6	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 4	1	398.57	55.00	21,921.4	282.67	112,663.8	0	0	
LIGHTER HATCH 2A - 5	1	398.57	73.00	29,095.6	282.67	112,663.8	0	0	
LIGHTER HATCH 2A - 6		0	87.17		282.67		0		
LIGHTER HOLD 2B - 1	1	398.57	12.50	4,982.1	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 2	1	398.57	26.67	10,629.9	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 3	1	398.57	40.83	16,273.6	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 4	1	398.57	55.00	21,921.4	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 5	1	398.57	73.00	29,095.6	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 6		0	87.17		319.33		0		
LIGHTER HOLD 2C - 1	1	398.57	12.50	4,982.1	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 2	1	398.57	26.67	10,629.9	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 3	1	398.57	40.83	16,273.6	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 4	1	398.57	55.00	21,921.4	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 5	1	398.57	73.00	29,095.6	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 6		0	87.17		356.00		0		
LIGHTER HOLD 3A - 1	1	398.57	12.50	4,982.1	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 2	1	398.57	26.67	10,629.9	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 3	1	398.57	40.83	16,273.6	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 4	1	398.57	55.00	21,921.4	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 5	1	398.57	73.00	29,095.6	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 6		0	87.17		392.67		0		
LIGHTER HOLD 3B - 1	1	398.57	12.50	4,982.1	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 2	1	398.57	26.67	10,629.9	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 3	1	398.57	40.83	16,273.6	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 4	1	398.57	55.00	21,921.4	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 5	1	398.57	73.00	29,095.6	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 6		0	87.17		429.34		0		
TOTAL LIGHTERS HOLD 2 & 3	25	9964.25	41.60	414,513.0	356.00	3,547,293.0	0	0	

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LOADING FORM

CONDITION: 2A. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER HOLD 4A-1	1	398.57	12.50	4,982.1	466.01	185,737.6	0	0	
LIGHTER HOLD 4A-2	1	398.57	26.67	10,629.9	466.01	185,737.6	0	0	
LIGHTER HOLD 4A-3	1	398.57	40.83	16,273.6	466.01	185,737.6	0	0	
LIGHTER HOLD 4A-4	1	398.57	55.00	21,921.4	466.01	185,737.6	0	0	
LIGHTER HATCH 4A-5	1	398.57	73.00	29,095.6	466.01	185,737.6	0	0	
LIGHTER HATCH 4A-6		0	87.17		466.01		0		
LIGHTER HOLD 4B-1	1	398.57	12.50	4,982.1	502.67	200,349.2	0	0	
LIGHTER HOLD 4B-2	1	398.57	26.67	10,629.9	502.67	200,349.2	0	0	
LIGHTER HOLD 4B-3	1	398.57	40.83	16,273.6	502.67	200,349.2	0	0	
LIGHTER HOLD 4B-4	1	398.57	55.00	21,921.4	502.67	200,349.2	0	0	
LIGHTER HATCH 4B-5	1	398.57	73.00	29,095.6	502.67	200,349.2	0	0	
LIGHTER HATCH 4B-6		0	87.17		502.67		0		
LIGHTER HOLD 4C-1	1	398.57	12.50	4,982.1	539.34	214,964.7	0	0	
LIGHTER HOLD 4C-2	1	398.57	26.67	10,629.9	539.34	214,964.7	0	0	
LIGHTER HOLD 4C-3	1	398.57	40.83	16,273.6	539.34	214,964.7	0	0	
LIGHTER HOLD 4C-4	1	398.57	55.00	21,921.4	539.34	214,964.7	0	0	
LIGHTER HATCH 4C-5	1	398.57	73.00	29,095.6	539.34	214,964.7	0	0	
LIGHTER HATCH 4C-6		0	87.17		539.34		0		
LIGHTER HATCH ER-5	1	398.57	73.00	29,095.6	575.99	229,572.3	0	0	
LIGHTER HATCH ER-6		0	87.17		575.99		0		
LIGHTER HOLD 5A-3	1	398.57	41.50	16,540.7	612.67	244,191.9	0	0	
LIGHTER HOLD 5A-4	1	398.57	55.67	22,188.4	612.67	244,191.9	0	0	
LIGHTER HATCH 5A-5	1	398.57	73.00	29,095.6	612.67	244,191.9	0	0	
LIGHTER HATCH 5A-6		0	87.17		612.67		0		
TOTAL LIGHTERS HOLD 4, ENG. RM & 5	19	7,572.83	45.64	345,628.1	523.90	3,967,405.5	0	0	

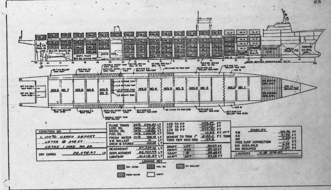
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LOADING FORM

CONDITION: 2A. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK, W/ BAL — BY: — DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER HOLD 6A-2	1	398.57	27.00	10,761.4	649.34	258,807.4	0	0	
LIGHTER HOLD 6A-3	1	398.57	41.17	16,409.1	649.34	258,807.4	0	0	
LIGHTER HOLD 6A-4	1	398.57	55.33	22,052.9	649.34	258,807.4	0	0	
LIGHTER HATCH 6A-5	1	398.57	73.00	29,095.6	649.34	258,807.4	0	0	
LIGHTER HATCH 6A-6		0	87.17		649.34		0		
LIGHTER HOLD 6B-2	1	398.57	27.00	10,761.4	686.01	273,423.0	0	0	
LIGHTER HOLD 6B-3	1	398.57	41.17	16,409.1	686.01	273,423.0	0	0	
LIGHTER HOLD 6B-4	1	398.57	55.33	22,052.9	686.01	273,423.0	0	0	
LIGHTER HATCH 6B-5	1	398.57	73.00	29,095.6	686.01	273,423.0	0	0	
LIGHTER HATCH 6B-6		0	87.17		686.01		0		
LIGHTER HOLD 7A-3	1	398.57	41.50	16,540.7	722.67	288,034.6	0	0	
LIGHTER HOLD 7A-4	1	398.57	55.67	22,188.4	722.67	288,034.6	0	0	
LIGHTER HATCH 7A-5	1	398.57	73.00	29,095.6	722.67	288,034.6	0	0	
LIGHTER HATCH 7A-6		0	87.17		722.67		0		
LIGHTER HOLD 7B-3	1	398.57	41.50	16,540.7	759.34	302,650.1	0	0	
LIGHTER HOLD 7B-4	1	398.57	55.67	22,188.4	759.34	302,650.1	0	0	
LIGHTER HATCH 7B-5	1	398.57	73.00	29,095.6	759.34	302,650.1	0	0	
LIGHTER HATCH 7B-6		0	87.17		759.34		0		
LIGHTER HATCH SG-5	1	398.57	68.17	27,170.5	795.99	317,257.7	0	0	
LIGHTER HATCH SG-6		0	82.33		795.99		0		
TOTAL LIGHTERS HOLDS 6, 7, & STG GR	15	5978.55	53.43	319,452.9	705.56	4,218,232.4	0	0	

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LOADING FORM SUMMARY

CONDITION: 1. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK — BY: — DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201	432.68	7,147,078	- 0.11	- 1,768.7	—	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	—	
CONSUMABLES & STORES		100.00	56.00	5,600.0	95.00	9,500.0	- 0.02	- 2.0	—	
SW BALLAST		0								
FRESH WATER	100 %	788.72	39.69	31,303.6	612.28	482,915.6	0	0	743.2	
FLUMES	35 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.2	
FUEL OIL	98 %	7,241.98	28.88	209,164.4	438.95	3,178,886.0	- 0.06	- 399.2	16,747.2	
DIESEL OIL	98 %	118.52	16.45	1,867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL	98 %	77.16	46.87	3,616.4	594.04	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,435.1	0	0	—	
LIGHTERS HOLDS 2 & 3	25	9,964.25	41.60	414,513.0	356.00	3,547,293.0	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	19	7,572.83	45.64	345,628.1	523.90	3,967,405.5	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	15	5,978.55	53.43	319,457.9	705.56	4,218,237.4	0	0	—	
TOTAL DISPLACEMENT		53,757.99	41.37	2,224,098.0	442.90	23,809,165.8	- 0.03	- 1,622.5	59,595.1	

DRAFT AT LCF 36.43 FT.	LCF AFT FP 457.82 FT	KM_t 45.96 FT.
LCG AFT FP 442.90 FT.	DRAFT @ FP 30.58 FT.	KG ABV. KEEL 41.46 FT.
LCB AFT FP 424.39 FT.	DRAFT @ AP 40.78 FT.	GM 4.50 FT.
TRIM LEVER (+AFT/-FWD) 18.51 FT.	DRAFT @ FWD D.M. 30.66 FT.	FS CORRN 1.11 FT.
MTI" 8133.0 FT-TONS	DRAFT @ D.M. 35.68 FT.	GM AVAILABLE 3.39 FT.
TRIM (+AFT/-FWD) 10.80 FT.	DRAFT @ AFT D.M. 39.68 FT.	GM REQUIRED 2.60 FT.
	TPI 159.8 TONS	HEEL (+PORT/-STBD) 0.51 DEGREES

LOADING FORM

CONDITION: 1. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK

BY: DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST					21.18		- 0.02			
FWD SW BALLAST					70.79		0			
#1 SW BALLAST					173.54		0			
#2 DB SW BALLAST P					321.63		+ 20.98			
#2 DB SW BALLAST S					321.63		- 20.98			
#2 WING SW BALLAST P					302.30		+ 42.29			
#2 WING SW BALLAST S					302.30		- 42.29			
#2A WING SW BALLAST P					374.36		+ 42.89			
#2A WING SW BALLAST S					374.36		- 42.89			
#3 DB SW BALLAST P					411.00		+ 22.07			
#3 DB SW BALLAST S					411.00		- 22.07			
#4 DB SW BALLAST P					499.74		+ 20.74			
#4 DB SW BALLAST S					499.74		- 20.74			
#4 WING SW BALLAST P					520.73		+ 42.64			
#4 WING SW BALLAST S					520.73		- 42.64			
#7 SW BALLAST P					736.77		+ 22.48			
#7 SW BALLAST S					737.18		- 30.53			
AFT SW BALLAST P					793.22		+ 20.16			
AFT SW BALLAST S					793.22		- 20.16			
TOTAL SW BALLAST										
FRESH WATER TANKS										
DISTILLED WATER P	100 %	242.93	47.58	11,558.6	613.13	148,947.7	+ 43.77	+ 10,633.0	833.8	
DISTILLED WATER S	100 %	242.93	47.58	11,558.6	613.13	148,947.7	- 43.77	- 10,633.0	833.8	
POTABLE WATER P	100 %	151.43	27.03	4,093.2	610.91	92,510.1	+ 40.10	+ 6,072.3	187.8	
POTABLE WATER S	100 %	151.43	27.03	4,093.2	610.91	92,510.1	- 40.10	- 6,072.3	187.8	
TOTAL FRESH WATER	100 %	788.72	39.69	31,302.6	612.28	482,915.6	0	0	793.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	39 %	268.16	28.01	7,511.2	173.31	46,474.8	0	0	20,804.0	
AFT FLUME	33 %	326.71	10.61	3,466.4	209.97	68,599.3	0	0	20,943.0	
TOTAL FLUMES	35 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	

LOADING FORM

CONDITION: 1. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK

BY: DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	98 %	994.24	20.79	20,670.3	127.80	127,063.9	+ 10.12	+ 10,061.7	2,388.8	
FUEL OIL STORAGE S	98 %	994.24	20.79	20,670.3	127.80	127,063.9	- 10.12	- 10,061.7	2,388.8	
#3 WING FUEL OIL P	98 %	1500.85	33.07	48,019.1	447.56	582,208.4	+ 42.81	+ 55,681.4	849.6	
#3 WING FUEL OIL S	98 %	1500.85	33.07	48,019.1	447.56	582,208.4	- 42.81	- 55,681.4	849.6	
#6 WING FUEL OIL P	98 %	1296.37	31.83	40,485.6	663.88	860,684.1	+ 34.53	+ 44,763.7	4,452.3	
#6 WING FUEL OIL S	98 %	1355.43	30.47	41,300.0	663.78	899,702.3	- 33.32	- 45,162.9	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	98 %	7241.98	28.88	209,164.4	438.95	3,178,886.0	- 0.06	- 399.2	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	98 %	56.13	15.82	888.0	564.83	31,703.9	+ 40.57	+ 2277.2	75.2	
DIESEL OIL S	98 %	56.13	15.82	888.0	564.83	31,703.9	- 40.57	- 2277.2	75.2	
400 GAL. DSL GEN DAY P	98 %	1.26	72.93	91.9	574.56	724.0	+ 48.42	+ 61.0	0.1	
TOTAL DIESEL OIL	98 %	113.52	16.45	1867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	98 %	28.48	51.88	1478.0	590.66	16,792.5	+ 26.00	+ 739.8	91.3	
LUBE OIL STORAGE DSL GEN P	98 %	4.22	51.87	218.9	590.66	2,492.6	+ 1.33	+ 5.6	0.3	
LUBE OIL GRAVITY S	98 %	14.80	52.62	778.8	590.66	8,741.8	- 4.00	- 59.2	8.0	
LUBE OIL SETTLING P	98 %	20.21	52.28	1056.6	590.47	11,933.4	- 9.83	- 198.7	45.1	
MAIN LUBE OIL SUMP	98 %	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	98 %	77.16	46.87	3616.4	594.04	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM

CONDITION: 1. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN. DK.

BY: DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	398.57	43.00	17,138.5	172.67	68,821.1	0	0	
LIGHTER HOLD 1A-4	1	398.57	57.17	22,786.3	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-5	1	398.57	74.50	29,693.5	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-6		0	88.67	0	172.67	0	0	0	
LIGHTER HOLD 1B-2	1	398.57	28.50	11,359.3	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-3	1	398.57	42.67	17,007.0	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-4	1	398.57	56.83	22,650.7	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-5	1	398.57	74.50	29,693.5	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-6		0	88.67	0	209.33	0	0	0	
LIGHTER HOLD 1C-1	1	398.57	14.50	5,779.3	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-2	1	398.57	28.67	11,427.0	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-3	1	398.57	42.83	17,070.8	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-4	1	398.57	57.00	22,718.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-5	1	398.57	74.50	29,693.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-6		0	88.67	0	246.00	0	0	0	
TOTAL LIGHTER HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,438.1	0	0	

LOADING FORM

CONDITION: 1. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK

BY: DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	398.57	12.50	4,982.1	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 2	1	398.57	26.67	10,629.9	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 3	1	398.57	40.83	16,273.6	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 4	1	398.57	55.00	21,921.4	282.67	112,663.8	0	0	
LIGHTER HATCH 2A - 5	1	398.57	73.00	29,095.6	282.67	112,663.8	0	0	
LIGHTER HATCH 2A - 6		0	87.17		282.67		0		
LIGHTER HOLD 2B - 1	1	398.57	12.50	4,982.1	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 2	1	398.57	26.67	10,629.9	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 3	1	398.57	40.83	16,273.6	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 4	1	398.57	55.00	21,921.4	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 5	1	398.57	73.00	29,095.6	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 6		0	87.17		319.33		0		
LIGHTER HOLD 2C - 1	1	398.57	12.50	4,982.1	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 2	1	398.57	26.67	10,629.9	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 3	1	398.57	40.83	16,273.6	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 4	1	398.57	55.00	21,921.4	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 5	1	398.57	73.00	29,095.6	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 6		0	87.17		356.00		0		
LIGHTER HOLD 3A - 1	1	398.57	12.50	4,982.1	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 2	1	398.57	26.67	10,629.9	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 3	1	398.57	40.83	16,273.6	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 4	1	398.57	55.00	21,921.4	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 5	1	398.57	73.00	29,095.6	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 6		0	87.17		392.67		0		
LIGHTER HOLD 3B - 1	1	398.57	12.50	4,982.1	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 2	1	398.57	26.67	10,629.9	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 3	1	398.57	40.83	16,273.6	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 4	1	398.57	55.00	21,921.4	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 5	1	398.57	73.00	29,095.6	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 6		0	87.17		429.34		0		
TOTAL LIGHTERS HOLD 2 & 3	25	9964.25	41.60	414,518.0	356.00	3,547,273.0	0	0	

LOADING FORM

CONDITION: 1. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK

BY: DATE:

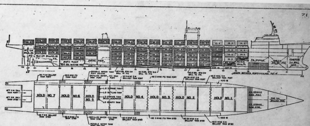
HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	398.57	12.50	4,982.1	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-2	1	398.57	26.67	10,629.9	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-3	1	398.57	40.83	16,273.6	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-4	1	398.57	55.00	21,921.4	466.01	185,737.6	0	0	
LIGHTER	HATCH	4A-5	1	398.57	73.00	29,095.6	466.01	185,737.6	0	0	
LIGHTER	HATCH	4A-6		0	87.17		466.01		0		
LIGHTER	HOLD	4B-1	1	398.57	12.50	4,982.1	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-2	1	398.57	26.67	10,629.9	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-3	1	398.57	40.83	16,273.6	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-4	1	398.57	55.00	21,921.4	502.67	200,349.2	0	0	
LIGHTER	HATCH	4B-5	1	398.57	73.00	29,095.6	502.67	200,349.2	0	0	
LIGHTER	HATCH	4B-6		0	87.17		502.67		0		
LIGHTER	HOLD	4C-1	1	398.57	12.50	4,982.1	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-2	1	398.57	26.67	10,629.9	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-3	1	398.57	40.83	16,273.6	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-4	1	398.57	55.00	21,921.4	539.34	214,964.7	0	0	
LIGHTER	HATCH	4C-5	1	398.57	73.00	29,095.6	539.34	214,964.7	0	0	
LIGHTER	HATCH	4C-6		0	87.17		539.34		0		
LIGHTER	HATCH	ER-5	1	398.57	73.00	29,095.6	575.99	229,573.3	0	0	
LIGHTER	HATCH	ER-6		0	87.17		575.99		0		
LIGHTER	HOLD	5A-3	1	398.57	41.50	16,540.7	612.67	244,191.9	0	0	
LIGHTER	HOLD	5A-4	1	398.57	55.67	22,188.4	612.67	244,191.9	0	0	
LIGHTER	HATCH	5A-5	1	398.57	73.00	29,095.6	612.67	244,191.9	0	0	
LIGHTER	HATCH	5A-6		0	87.17		612.67		0		
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			19	7,572.83	45.64	345,628.1	523.90	3,967,405.5	0	0	

LOADING FORM

CONDITION: 1. 100% CARGO DEPART, LGTRS @ 398.57, LGTRS 1 HIGH MN DK

BY: DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	398.57	27.00	10,761.4	649.34	258,807.4	0	0	
LIGHTER	HOLD	6A-3	1	398.57	41.17	16,409.1	649.34	258,807.4	0	0	
LIGHTER	HOLD	6A-4	1	398.57	55.33	22,052.9	649.34	258,807.4	0	0	
LIGHTER	HATCH	6A-5	1	398.57	73.00	29,095.6	649.34	258,807.4	0	0	
LIGHTER	HATCH	6A-6		0	87.17		649.34		0		
LIGHTER	HOLD	6B-2	1	398.57	27.00	10,761.4	686.01	273,423.0	0	0	
LIGHTER	HOLD	6B-3	1	398.57	41.17	16,409.1	686.01	273,423.0	0	0	
LIGHTER	HOLD	6B-4	1	398.57	55.33	22,052.9	686.01	273,423.0	0	0	
LIGHTER	HATCH	6B-5	1	398.57	73.00	29,095.6	686.01	273,423.0	0	0	
LIGHTER	HATCH	6B-6		0	87.17		686.01		0		
LIGHTER	HOLD	7A-3	1	398.57	41.50	16,540.7	722.67	288,034.6	0	0	
LIGHTER	HOLD	7A-4	1	398.57	55.67	22,188.4	722.67	288,034.6	0	0	
LIGHTER	HATCH	7A-5	1	398.57	73.00	29,095.6	722.67	288,034.6	0	0	
LIGHTER	HATCH	7A-6		0	87.17		722.67		0		
LIGHTER	HOLD	7B-3	1	398.57	41.50	16,540.7	759.34	302,650.1	0	0	
LIGHTER	HOLD	7B-4	1	398.57	55.67	22,188.4	759.34	302,650.1	0	0	
LIGHTER	HATCH	7B-5	1	398.57	73.00	29,095.6	759.34	302,650.1	0	0	
LIGHTER	HATCH	7B-6		0	87.17		759.34		0		
LIGHTER	HATCH	SG-5	1	398.57	68.17	27,170.5	795.99	317,257.7	0	0	
LIGHTER	HATCH	SG-6		0	82.33		795.99		0		
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			15	5978.55	53.43	319,452.9	705.56	4,218,232.4	0	0	



CONDITION NO. 2	
2. 100% CARGO ARRIVAL LGTRS @ 398.57 LGTRS 1 HIGH MN DK	
DRY CARGO	28,298.47 LT

FLUME TANKS	35%	594.87	LT
LUBE OIL	10%	16.26	LT
DIESEL OIL	10%	11.35	LT
FUEL OIL	33%	2,412.99	LT
FRESH WATER	10%	78.86	LT
S.W. BALLAST		1,384.26	LT
CREW & STORES		60.00	LT
DEADWEIGHT		32,858.06	LT
DISPLACEMENT		49,376.33	LT
LIGHTSHIP		16,518.27	LT

LCB TO FP	421.43	FT
LCF TO FP	457.19	FT
LCG TO FP	437.47	FT
TRIM	8.37	FT AFT
MOMENT TO TRIM 1"	7885.9	FT. TONS
TONS PER INCH IMM.	157.8	
DRAFT LCF	34.13	FT
DRAFT FWD	29.29	FT
DRAFT ⊗	33.58	FT
DRAFT AFT	36.80	FT

STABILITY		
KM	46.25	FT
KG	40.	FT
GM	5.	FT
FREE SURF. CORRECTION	1.21	FT
GM AVAILABLE	4	FT
GM REQUIRED	2.82	FT
LIGHTERS	71 @ 398.57	

LOADING KEY: DRY CARGO, FUEL OIL, SW BALLAST, FRESH WATER, EMPTY

LOADING FORM SUMMARY

CONDITION: 2. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK

BY: DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201	432.68	7,147,018	- 0.11	- 1,768.7	—	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	—	
CONSUMABLES & STORES		35.00	56.00	1,960.0	95.00	3,325.0	- 0.02	- 0.5	—	
SW BALLAST		1384.26	3.55	4,914.2	321.63	445,219.6	0	0	0	
FRESH WATER	10%	78.86	31.82	2,509.0	618.28	48,889.2	0	0	793.2	
FLUMES	35%	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	
FUEL OIL	33%	2,412.99	13.84	33,415.2	438.95	1,059,188.6	- 0.06	- 133.2	16,747.2	
DIESEL OIL	10%	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL	10%	16.26	25.34	412.0	606.48	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,435.1	0	0	—	
LIGHTERS HOLDS 2 & 3	25	9,964.25	41.60	414,518.0	356.00	3,547,293.0	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	19	7,572.83	45.64	345,628.1	523.90	3,967,405.5	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	15	5,978.55	53.43	319,457.9	705.56	4,218,232.4	0	0	—	
TOTAL DISPLACEMENT		49,376.33	40.83	2,015,859.9	437.47	21,600,638.8	- 0.03	- 1,689.4	59,598.1	

DRAFT AT LCF	34.13	FT.
LCG AFT FP	437.47	FT.
LCB AFT FP	421.43	FT.
TRIM LEVER (+AFT/-FWD)	16.04	FT.
MT1"	7885.9	FT-TONS
TRIM (+AFT/-FWD)	8.37	FT.
LCF AFT FP	457.19	FT
DRAFT @ FP	29.83	FT.
DRAFT @ AP	37.70	FT.
DRAFT @ FWD D.M.	29.29	FT.
DRAFT @ ⊗ D.M.	33.58	FT.
DRAFT @ AFT D.M.	36.80	FT.
TPI	157.8	TONS
KM_t	46.25	FT.
KG ABV. KEEL	40.92	FT.
GM	5.33	FT.
FS CORRN	1.21	FT.
GM AVAILABLE	4.12	FT.
GM REQUIRED	2.82	FT.
HEEL (+PORT/-STBD)	0.48	DEGREES

RED. 8X DATE 7-81
MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 10

LOADING FORM

CONDITION: 2. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK — BY: — DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.- TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST					21.18		- 0.02			
FWD SW BALLAST					70.79		0			
#1 SW BALLAST					173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,457.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,457.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P					302.30		+ 42.29			
#2 WING SW BALLAST S					302.30		- 42.29			
#2A WING SW BALLAST P					374.36		+ 42.89			
#2A WING SW BALLAST S					374.36		- 42.89			
#3 DB SW BALLAST P					411.00		+ 22.07			
#3 DB SW BALLAST S					411.00		- 22.07			
#4 DB SW BALLAST P					499.74		+ 20.74			
#4 DB SW BALLAST S					499.74		- 20.74			
#4 WING SW BALLAST P					520.73		+ 42.64			
#4 WING SW BALLAST S					520.73		- 42.64			
#7 SW BALLAST P					736.77		+ 22.48			
#7 SW BALLAST S					737.18		- 30.53			
AFT SW BALLAST P					793.22		+ 20.16			
AFT SW BALLAST S					793.22		- 20.16			
TOTAL SW BALLAST		1,384.26	3.55	4,914.2	321.63	445,219.6	0	0	0	
FRESH WATER TANKS										
DISTILLED WATER P	10 %	24.29	39.02	947.8	613.13	14,892.9	+ 43.77	+ 1,063.2	233.8	
DISTILLED WATER S	10 %	24.29	39.02	947.8	613.13	14,892.9	- 43.77	- 1,063.2	233.8	
POTABLE WATER P	10 %	15.14	20.26	306.7	610.91	9,249.2	+ 40.10	+ 607.1	137.8	
POTABLE WATER S	10 %	15.14	20.26	306.7	610.91	9,249.2	- 40.10	- 607.1	137.8	
TOTAL FRESH WATER	10 %	78.86	31.82	2,509.0	612.28	48,284.2	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	39 %	268.16	28.01	7,511.2	173.31	46,474.8	0	0	20,804.0	
AFT FLUME	33 %	326.71	10.61	3,466.4	209.97	68,599.3	0	0	20,943.0	
TOTAL FLUMES	35 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	

LOADING FORM

CONDITION: 2. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK — BY: — DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	33 %	331.41	9.03	2,992.6	127.80	42,354.2	+ 10.12	+ 3,353.9	2,358.8	
FUEL OIL STORAGE S	33 %	331.41	9.03	2,992.6	127.80	42,354.2	- 10.12	- 3,353.9	2,358.8	
#3 WING FUEL OIL P	33 %	433.62	16.81	7,289.2	447.56	194,071.0	+ 42.81	+ 18,563.3	547.6	
#3 WING FUEL OIL S	33 %	433.62	16.81	7,289.2	447.56	194,071.0	- 42.81	- 18,563.3	547.6	
#6 WING FUEL OIL P	33 %	432.12	14.81	6,399.7	663.88	286,875.8	+ 34.53	+ 14,921.1	4,458.3	
#6 WING FUEL OIL S	33 %	451.81	14.28	6,451.9	663.78	299,902.4	- 33.32	- 15,054.3	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	33 %	2,413.99	13.84	33,415.2	438.95	1,059,628.6	- 0.06	- 133.2	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	10 %	5.61	8.01	44.9	564.83	3,168.7	+ 40.57	+ 227.6	75.2	
DIESEL OIL S	10 %	5.61	8.01	44.9	564.83	3,168.7	- 40.57	- 227.6	75.2	
400 GAL. DSL GEN DAY P	10 %	0.13	70.81	9.2	574.56	74.7	+ 48.42	+ 6.3	0.1	
TOTAL DIESEL OIL	10 %	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	10 %	2.84	47.93	136.1	590.66	1,677.5	+ 26.00	+ 73.8	91.3	
LUBE OIL STORAGE DSL GEN P	10 %	0.42	47.93	20.1	590.66	248.1	+ 1.33	+ 0.6	0.3	
LUBE OIL GRAVITY S	10 %	1.48	48.00	71.0	590.66	874.2	- 4.00	- 5.9	8.0	
LUBE OIL SETTLING P	10 %	2.02	48.34	97.7	590.47	1,192.8	- 9.83	- 19.9	46.1	
MAIN LUBE OIL SUMP	50 %	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	10 %	16.26	25.34	412.0	606.92	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM

CONDITION: 2. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN. DK., — BY: — DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	398.57	43.00	17,138.5	172.67	68,821.1	0	0	
LIGHTER HOLD 1A-4	1	398.57	57.17	22,786.3	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-5	1	398.57	74.50	29,693.5	172.67	68,821.1	0	0	
LIGHTER HATCH 1A-6		0	88.67	0	172.67	0	0	0	
LIGHTER HOLD 1B-2	1	398.57	28.50	11,359.3	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-3	1	398.57	42.67	17,007.0	209.33	83,432.7	0	0	
LIGHTER HOLD 1B-4	1	398.57	56.83	22,650.7	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-5	1	398.57	74.50	29,693.5	209.33	83,432.7	0	0	
LIGHTER HATCH 1B-6		0	88.67	0	209.33	0	0	0	
LIGHTER HOLD 1C-1	1	398.57	14.50	5,779.3	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-2	1	398.57	28.67	11,427.0	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-3	1	398.57	42.83	17,070.8	246.00	98,048.2	0	0	
LIGHTER HOLD 1C-4	1	398.57	57.00	22,718.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-5	1	398.57	74.50	29,693.5	246.00	98,048.2	0	0	
LIGHTER HATCH 1C-6		0	88.67	0	246.00	0	0	0	
TOTAL LIGHTER HOLD 1	12	4,782.84	49.56	237,017.9	215.44	1,030,435.1	0	0	

LOADING FORM

CONDITION: 2. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK — BY: — DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	398.57	12.50	4,982.1	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 2	1	398.57	26.67	10,629.9	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 3	1	398.57	40.83	16,273.6	282.67	112,663.8	0	0	
LIGHTER HOLD 2A - 4	1	398.57	55.00	21,921.4	282.67	112,663.8	0	0	
LIGHTER HATCH 2A - 5	1	398.57	73.00	29,095.6	282.67	112,663.8	0	0	
LIGHTER HATCH 2A - 6		0	87.17		282.67		0		
LIGHTER HOLD 2B - 1	1	398.57	12.50	4,982.1	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 2	1	398.57	26.67	10,629.9	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 3	1	398.57	40.83	16,273.6	319.33	127,275.4	0	0	
LIGHTER HOLD 2B - 4	1	398.57	55.00	21,921.4	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 5	1	398.57	73.00	29,095.6	319.33	127,275.4	0	0	
LIGHTER HATCH 2B - 6		0	87.17		319.33		0		
LIGHTER HOLD 2C - 1	1	398.57	12.50	4,982.1	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 2	1	398.57	26.67	10,629.9	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 3	1	398.57	40.83	16,273.6	356.00	141,890.9	0	0	
LIGHTER HOLD 2C - 4	1	398.57	55.00	21,921.4	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 5	1	398.57	73.00	29,095.6	356.00	141,890.9	0	0	
LIGHTER HATCH 2C - 6		0	87.17		356.00		0		
LIGHTER HOLD 3A - 1	1	398.57	12.50	4,982.1	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 2	1	398.57	26.67	10,629.9	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 3	1	398.57	40.83	16,273.6	392.67	156,506.5	0	0	
LIGHTER HOLD 3A - 4	1	398.57	55.00	21,921.4	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 5	1	398.57	73.00	29,095.6	392.67	156,506.5	0	0	
LIGHTER HATCH 3A - 6		0	87.17		392.67		0		
LIGHTER HOLD 3B - 1	1	398.57	12.50	4,982.1	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 2	1	398.57	26.67	10,629.9	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 3	1	398.57	40.83	16,273.6	429.34	171,122.0	0	0	
LIGHTER HOLD 3B - 4	1	398.57	55.00	21,921.4	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 5	1	398.57	73.00	29,095.6	429.34	171,122.0	0	0	
LIGHTER HATCH 3B - 6		0	87.17		429.34		0		
TOTAL LIGHTERS HOLD 2 & 3	25	9964.25	41.60	414,513.0	356.00	3,547,293.0	0	0	

LOADING FORM

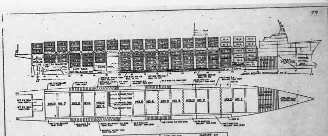
CONDITION: 2. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK — BY: — DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	398.57	12.50	4,982.1	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-2	1	398.57	26.67	10,629.9	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-3	1	398.57	40.83	16,273.6	466.01	185,737.6	0	0	
LIGHTER	HOLD	4A-4	1	398.57	55.00	21,921.4	466.01	185,737.6	0	0	
LIGHTER	HATCH	4A-5	1	398.57	73.00	29,095.6	466.01	185,737.6	0	0	
LIGHTER	HATCH	4A-6		0	87.17		466.01		0		
LIGHTER	HOLD	4B-1	1	398.57	12.50	4,982.1	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-2	1	398.57	26.67	10,629.9	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-3	1	398.57	40.83	16,273.6	502.67	200,349.2	0	0	
LIGHTER	HOLD	4B-4	1	398.57	55.00	21,921.4	502.67	200,349.2	0	0	
LIGHTER	HATCH	4B-5	1	398.57	73.00	29,095.6	502.67	200,349.2	0	0	
LIGHTER	HATCH	4B-6		0	87.17		502.67		0		
LIGHTER	HOLD	4C-1	1	398.57	12.50	4,982.1	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-2	1	398.57	26.67	10,629.9	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-3	1	398.57	40.83	16,273.6	539.34	214,964.7	0	0	
LIGHTER	HOLD	4C-4	1	398.57	55.00	21,921.4	539.34	214,964.7	0	0	
LIGHTER	HATCH	4C-5	1	398.57	73.00	29,095.6	539.34	214,964.7	0	0	
LIGHTER	HATCH	4C-6		0	87.17		539.34		0		
LIGHTER	HATCH	ER-5	1	398.57	73.00	29,095.6	575.99	229,572.3	0	0	
LIGHTER	HATCH	ER-6		0	87.17		575.99		0		
LIGHTER	HOLD	5A-3	1	398.57	41.50	16,540.7	612.67	244,191.9	0	0	
LIGHTER	HOLD	5A-4	1	398.57	55.67	22,188.4	612.67	244,191.9	0	0	
LIGHTER	HATCH	5A-5	1	398.57	73.00	29,095.6	612.67	244,191.9	0	0	
LIGHTER	HATCH	5A-6		0	87.17		612.67		0		
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			19	7,572.83	45.64	345,628.1	523.90	3,967,402.5	0	0	

LOADING FORM

CONDITION: 2. 100% CARGO ARRIVAL, LGTRS @ 398.57, LGTRS 1 HIGH MN DK — BY: — DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	398.57	27.00	10,761.4	649.34	258,807.4	0	0	
LIGHTER	HOLD	6A-3	1	398.57	41.17	16,409.1	649.34	258,807.4	0	0	
LIGHTER	HOLD	6A-4	1	398.57	55.33	22,052.9	649.34	258,807.4	0	0	
LIGHTER	HATCH	6A-5	1	398.57	73.00	29,095.6	649.34	258,807.4	0	0	
LIGHTER	HATCH	6A-6		0	87.17		649.34		0		
LIGHTER	HOLD	6B-2	1	398.57	27.00	10,761.4	686.01	273,423.0	0	0	
LIGHTER	HOLD	6B-3	1	398.57	41.17	16,409.1	686.01	273,423.0	0	0	
LIGHTER	HOLD	6B-4	1	398.57	55.33	22,052.9	686.01	273,423.0	0	0	
LIGHTER	HATCH	6B-5	1	398.57	73.00	29,095.6	686.01	273,423.0	0	0	
LIGHTER	HATCH	6B-6		0	87.17		686.01		0		
LIGHTER	HOLD	7A-3	1	398.57	41.50	16,540.7	722.67	288,034.6	0	0	
LIGHTER	HOLD	7A-4	1	398.57	55.67	22,188.4	722.67	288,034.6	0	0	
LIGHTER	HATCH	7A-5	1	398.57	73.00	29,095.6	722.67	288,034.6	0	0	
LIGHTER	HATCH	7A-6		0	87.17		722.67		0		
LIGHTER	HOLD	7B-3	1	398.57	41.50	16,540.7	759.34	302,650.1	0	0	
LIGHTER	HOLD	7B-4	1	398.57	55.67	22,188.4	759.34	302,650.1	0	0	
LIGHTER	HATCH	7B-5	1	398.57	73.00	29,095.6	759.34	302,650.1	0	0	
LIGHTER	HATCH	7B-6		0	87.17		759.34		0		
LIGHTER	HATCH	SG-5	1	398.57	68.17	27,170.5	795.99	317,257.7	0	0	
LIGHTER	HATCH	SG-6		0	82.33		795.99		0		
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			15	5978.55	53.43	319,452.9	705.56	4,218,233.4	0	0	



CONDITION NO. 3	
3. 100% CARGO DEPART, LGTRS @ 249.19, LGTRS 2 HIGH MN DK	
DRY CARGO	22,177.91 LT

FLUME TANKS	35%	594.87 LT
LUBE OIL	98%	77.16 LT
DIESEL OIL	98%	113.52 LT
FUEL OIL	98%	7,241.18 LT
FRESH WATER	100%	788.92 LT
S.W. BALLAST		2,789.14 LT
CREW & STORES		125.00 LT
DEADWEIGHT		34,848.50 LT
DISPLACEMENT		51,366.77 LT
LIGHTSHIP		16,518.27 LT

LCB TO FP	422.82 FT
LCF TO FP	457.25 FT
LCG TO FP	442.44 FT
TRIM	10.50 FT AFT
MOMENT TO TRIM 1"	6000.9 FT. TONS
TONS PER INCH IMM.	158.7
DRAFT LCF	35.18 FT
DRAFT FWD	29.24 FT
DRAFT ⊗	34.41 FT
DRAFT AFT	38.53 FT

STABILITY	
KM	46.11 FT
KG	41.65 FT
GM	4.46 FT
FREE SURF. CORRECTION	1.16 FT
GM AVAILABLE	3.30 FT
GM REQUIRED	2.70 FT
LIGHTERS	24 @ 249.19

LOADING KEY: DRY CARGO — FUEL OIL — SW BALLAST — FRESH WATER — EMPTY

LOADING FORM SUMMARY

CONDITION: 3. 100% CARGO DEPART, LGTRS @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201	432.68	7,147,078	-0.11	-1,768.7	—	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	—	
CONSUMABLES & STORES		100.00	56.00	5,600.0	95.00	9,500.0	- 0.02	- 2.0	—	
SW BALLAST		2789.14	3.56	13,088.4	410.04	1,529,062.0	0	0	0	
FRESH WATER	100%	788.92	39.69	31,308.6	612.38	483,115.6	0	0	743.2	
FLUMES	35%	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,742.0	
FUEL OIL	98%	7,241.18	28.88	209,169.4	438.95	3,178,886.0	- 0.06	- 399.2	16,747.2	
DIESEL OIL	98%	113.52	16.45	1,867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL	98%	77.16	46.87	3,616.4	594.04	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	15	3,737.85	57.38	214,473.1	214.32	800,724.1	0	0	—	
LIGHTERS HOLDS 2 & 3	30	7,475.70	44.20	367,767.5	355.98	2,660,823.0	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	24	5,980.56	54.32	324,834.5	527.12	3,152,447.2	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	20	4,983.80	61.63	307,131.9	709.84	3,537,692.6	0	0	—	
TOTAL DISPLACEMENT		51,366.77	41.56	2,134,973.3	442.44	22,726,570.7	- 0.03	- 1,622.5	59,594.9	

DRAFT AT LCF	35.18	FT.
LCG AFT FP	442.44	FT.
LCB AFT FP	422.82	FT.
TRIM LEVER (+AFT/-FWD)	19.62	FT.
MTI"	6000.9	FT-TONS
TRIM (+AFT/-FWD)	10.50	FT.

LCF AFT FP	457.25	FT
DRAFT @ FP	29.16	FT.
DRAFT @ AP	39.66	FT.
DRAFT @ FWD D.M.	29.24	FT.
DRAFT @ ⊗ D.M.	34.41	FT.
DRAFT @ AFT D.M.	38.53	FT.
TPI	158.7	TONS

KM_t	46.11	FT.
KG ABV. KEEL	41.65	FT.
GM	4.46	FT.
FS CORRN	1.16	FT.
GM AVAILABLE	3.30	FT.
GM REQUIRED	2.70	FT.
HEEL (+PORT/-STBD)	0.55	DEGREES

RED. 8X DATE 7-81
MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 11

LOADING FORM

CONDITION: 3. 100% CARGO DEPART, LGTRS @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE: — 81

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,487.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,487.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P		0			302.30		+ 42.29			
#2 WING SW BALLAST S		0			302.30		- 42.29			
#2A WING SW BALLAST P		0			374.36		+ 42.89			
#2A WING SW BALLAST S		0			374.36		- 42.89			
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.2	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.2	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P	100 %	676.79	3.57	2,416.1	499.74	338,219.0	+ 20.74	+ 14,036.6	0	
#4 DB SW BALLAST S	100 %	676.79	3.57	2,416.1	499.74	338,219.0	- 20.74	- 14,036.6	0	
#4 WING SW BALLAST P					520.73		+ 42.64			
#4 WING SW BALLAST S					520.73		- 42.64			
#7 SW BALLAST P					736.77		+ 22.48			
#7 SW BALLAST S					737.18		- 30.53			
AFT SW BALLAST P					793.22		+ 20.16			
AFT SW BALLAST S					793.22		- 20.16			
TOTAL SW BALLAST		3,729.14	3.56	13,885.4	410.04	1,529,088.0	0	0	0	
FRESH WATER TANKS										
DISTILLED WATER P	100 %	242.93	47.58	11,558.6	613.13	148,947.7	+ 43.77	+ 10,633.0	233.8	
DISTILLED WATER S	100 %	242.93	47.58	11,558.6	613.13	148,947.7	- 43.77	- 10,633.0	233.8	
POTABLE WATER P	100 %	151.43	27.03	4,093.2	610.91	92,510.1	+ 40.10	+ 6,072.3	137.8	
POTABLE WATER S	100 %	151.43	27.03	4,093.2	610.91	92,510.1	- 40.10	- 6,072.3	137.8	
TOTAL FRESH WATER	100 %	788.72	39.69	31,303.6	612.28	482,915.6	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	39 %	268.16	28.01	7,511.2	173.31	46,474.8	0	0	20,804.0	
AFT FLUME	33 %	326.71	10.61	3,466.2	209.97	68,599.3	0	0	20,943.0	
TOTAL FLUMES	35 %	594.87	18.45	10,977.6	193.94	115,074.1	0	0	41,747.0	

LOADING FORM

CONDITION: 3. 100% CARGO DEPART, LGTRS @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE: — 82

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	98%	994.24	20.79	20,670.3	127.80	127,063.9	+ 10.12	+ 10,061.7	2,358.8	
FUEL OIL STORAGE S	98%	994.24	20.79	20,670.3	127.80	127,063.9	- 10.12	- 10,061.7	2,358.8	
#3 WING FUEL OIL P	98 %	1300.85	33.07	43,019.1	447.56	582,208.4	+ 42.81	+ 55,689.4	549.6	
#3 WING FUEL OIL S	98 %	1300.85	33.07	43,019.1	447.56	582,208.4	- 42.81	- 55,689.4	549.6	
#6 WING FUEL OIL P	98 %	1296.37	31.23	40,485.6	663.88	860,624.1	+ 34.53	+ 44,763.7	6,458.3	
#6 WING FUEL OIL S	98 %	1355.43	30.47	41,300.0	663.78	899,707.3	- 33.32	- 45,162.9	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	98 %	7241.98	28.88	209,164.4	438.95	3,178,886.0	- 0.06	- 399.2	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	98 %	56.13	15.82	888.0	564.83	31,703.9	+ 40.57	+ 2277.2	75.2	
DIESEL OIL S	98 %	56.13	15.82	888.0	564.83	31,703.9	- 40.57	- 2277.2	75.2	
400 GAL. DSL GEN DAY P	98 %	1.26	72.98	91.9	574.56	724.0	+ 48.42	+ 61.0	0.1	
TOTAL DIESEL OIL	98 %	113.52	16.45	1867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	98 %	28.43	51.88	1478.0	590.66	16,792.5	+ 26.00	+ 739.2	41.3	
LUBE OIL STORAGE DSL GEN P	98 %	4.22	51.87	218.9	590.66	2,492.6	+ 1.33	+ 5.6	0.3	
LUBE OIL GRAVITY S	98 %	14.80	52.62	778.8	590.66	8,741.8	- 4.00	- 59.2	8.0	
LUBE OIL SETTLING P	98 %	20.21	52.28	1056.6	590.47	11,933.4	- 9.83	- 198.7	96.1	
MAIN LUBE OIL SUMP	98 %	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	98 %	77.16	46.87	3616.4	594.04	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM

CONDITION: 3. 100% CARGO DEPART, LGTR @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE: — 83

HOLD	NUMBER OF LIGHTERS	WEIGHT WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	249.19	43.00	10,715.2	172.67	43,027.6	0	0	
LIGHTER HOLD 1A-4	1	249.19	57.17	14,246.2	172.67	43,027.6	0	0	
LIGHTER HATCH 1A-5	1	249.19	74.50	18,564.7	172.67	43,027.6	0	0	
LIGHTER HATCH 1A-6	1	249.19	88.67	22,095.7	172.67	43,027.6	0	0	
LIGHTER HOLD 1B-2	1	249.19	28.50	7,101.9	209.33	52,162.9	0	0	
LIGHTER HOLD 1B-3	1	249.19	42.67	10,632.9	209.33	52,162.9	0	0	
LIGHTER HOLD 1B-4	1	249.19	56.83	14,161.5	209.33	52,162.9	0	0	
LIGHTER HATCH 1B-5	1	249.19	74.50	18,564.7	209.33	52,162.9	0	0	
LIGHTER HATCH 1B-6	1	249.19	88.67	22,095.7	209.33	52,162.9	0	0	
LIGHTER HOLD 1C-1	1	249.19	14.50	3,613.3	246.00	61,300.7	0	0	
LIGHTER HOLD 1C-2	1	249.19	28.67	7,144.3	246.00	61,300.7	0	0	
LIGHTER HOLD 1C-3	1	249.19	42.83	10,672.8	246.00	61,300.7	0	0	
LIGHTER HOLD 1C-4	1	249.19	57.00	14,203.8	246.00	61,300.7	0	0	
LIGHTER HATCH 1C-5	1	249.19	74.50	18,564.7	246.00	61,300.7	0	0	
LIGHTER HATCH 1C-6	1	249.19	88.67	22,095.7	246.00	61,300.7	0	0	
TOTAL LIGHTER HOLD 1	15	3737.85	57.38	214,473.1	214.22	800,729.1	0	0	

LOADING FORM

CONDITION: 3. 100% CARGO DEPART, LGTRS @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE: — 84

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	249.19	12.50	3,114.9	282.67	70,438.5	0	0	
LIGHTER HOLD 2A - 2	1	249.19	26.67	6,645.9	282.67	70,438.5	0	0	
LIGHTER HOLD 2A - 3	1	249.19	40.83	10,174.4	282.67	70,438.5	0	0	
LIGHTER HOLD 2A - 4	1	249.19	55.00	13,705.5	282.67	70,438.5	0	0	
LIGHTER HATCH 2A - 5	1	249.19	73.00	18,190.9	282.67	70,438.5	0	0	
LIGHTER HATCH 2A - 6	1	249.19	87.17	21,721.9	282.67	70,438.5	0	0	
LIGHTER HOLD 2B - 1	1	249.19	12.50	3,114.9	319.33	79,573.8	0	0	
LIGHTER HOLD 2B - 2	1	249.19	26.67	6,645.9	319.33	79,573.8	0	0	
LIGHTER HOLD 2B - 3	1	249.19	40.83	10,174.4	319.33	79,573.8	0	0	
LIGHTER HOLD 2B - 4	1	249.19	55.00	13,705.5	319.33	79,573.8	0	0	
LIGHTER HATCH 2B - 5	1	249.19	73.00	18,190.9	319.33	79,573.8	0	0	
LIGHTER HATCH 2B - 6	1	249.19	87.17	21,721.9	319.33	79,573.8	0	0	
LIGHTER HOLD 2C - 1	1	249.19	12.50	3,114.9	356.00	88,711.6	0	0	
LIGHTER HOLD 2C - 2	1	249.19	26.67	6,645.9	356.00	88,711.6	0	0	
LIGHTER HOLD 2C - 3	1	249.19	40.83	10,174.4	356.00	88,711.6	0	0	
LIGHTER HOLD 2C - 4	1	249.19	55.00	13,705.5	356.00	88,711.6	0	0	
LIGHTER HATCH 2C - 5	1	249.19	73.00	18,190.9	356.00	88,711.6	0	0	
LIGHTER HATCH 2C - 6	1	249.19	87.17	21,721.9	356.00	88,711.6	0	0	
LIGHTER HOLD 3A - 1	1	249.19	12.50	3,114.9	392.67	97,849.4	0	0	
LIGHTER HOLD 3A - 2	1	249.19	26.67	6,645.9	392.67	97,849.4	0	0	
LIGHTER HOLD 3A - 3	1	249.19	40.83	10,174.4	392.67	97,849.4	0	0	
LIGHTER HOLD 3A - 4	1	249.19	55.00	13,705.5	392.67	97,849.4	0	0	
LIGHTER HATCH 3A - 5	1	249.19	73.00	18,190.9	392.67	97,849.4	0	0	
LIGHTER HATCH 3A - 6	1	249.19	87.17	21,721.9	392.67	97,849.4	0	0	
LIGHTER HOLD 3B - 1	1	249.19	12.50	3,114.9	429.34	106,987.2	0	0	
LIGHTER HOLD 3B - 2	1	249.19	26.67	6,645.9	429.34	106,987.2	0	0	
LIGHTER HOLD 3B - 3	1	249.19	40.83	10,174.4	429.34	106,987.2	0	0	
LIGHTER HOLD 3B - 4	1	249.19	55.00	13,705.5	429.34	106,987.2	0	0	
LIGHTER HATCH 3B - 5	1	249.19	73.00	18,190.9	429.34	106,987.2	0	0	
LIGHTER HATCH 3B - 6	1	249.19	87.17	21,721.9	429.34	106,987.2	0	0	
TOTAL LIGHTERS HOLD 2 & 3	30	7,475.70	49.20	367,767.5	355.93	2,660,883.0	0	0	

LOADING FORM

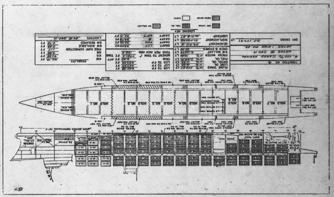
CONDITION: 3. 100% CARGO DEPART, LGTRS @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE: — 85

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	249.19	12.50	3,114.9	466.01	116,125.0	0	0	
LIGHTER	HOLD	4A-2	1	249.19	26.67	6,645.9	466.01	116,125.0	0	0	
LIGHTER	HOLD	4A-3	1	249.19	40.83	10,174.4	466.01	116,125.0	0	0	
LIGHTER	HOLD	4A-4	1	249.19	55.00	13,750.5	466.01	116,125.0	0	0	
LIGHTER	HATCH	4A-5	1	249.19	73.00	18,190.9	466.01	116,125.0	0	0	
LIGHTER	HATCH	4A-6	1	249.19	87.17	21,721.9	466.01	116,125.0	0	0	
LIGHTER	HOLD	4B-1	1	249.19	12.50	3,114.9	502.67	125,260.3	0	0	
LIGHTER	HOLD	4B-2	1	249.19	26.67	6,645.9	502.67	125,260.3	0	0	
LIGHTER	HOLD	4B-3	1	249.19	40.83	10,174.4	502.67	125,260.3	0	0	
LIGHTER	HOLD	4B-4	1	249.19	55.00	13,750.5	502.67	125,260.3	0	0	
LIGHTER	HATCH	4B-5	1	249.19	73.00	18,190.9	502.67	125,260.3	0	0	
LIGHTER	HATCH	4B-6	1	249.19	87.17	21,721.9	502.67	125,260.3	0	0	
LIGHTER	HOLD	4C-1	1	249.19	12.50	3,114.9	539.34	134,398.1	0	0	
LIGHTER	HOLD	4C-2	1	249.19	26.67	6,645.9	539.34	134,398.1	0	0	
LIGHTER	HOLD	4C-3	1	249.19	40.83	10,174.4	539.34	134,398.1	0	0	
LIGHTER	HOLD	4C-4	1	249.19	55.00	13,750.5	539.34	134,398.1	0	0	
LIGHTER	HATCH	4C-5	1	249.19	73.00	18,190.9	539.34	134,398.1	0	0	
LIGHTER	HATCH	4C-6	1	249.19	87.17	21,721.9	539.34	134,398.1	0	0	
LIGHTER	HATCH	ER-5	1	249.19	73.00	18,190.9	575.99	143,531.0	0	0	
LIGHTER	HATCH	ER-6	1	249.19	87.17	21,721.9	575.99	143,531.0	0	0	
LIGHTER	HOLD	5A-3	1	249.19	41.50	10,341.4	612.67	152,671.2	0	0	
LIGHTER	HOLD	5A-4	1	249.19	55.67	13,872.4	612.67	152,671.2	0	0	
LIGHTER	HATCH	5A-5	1	249.19	73.00	18,190.9	612.67	152,671.2	0	0	
LIGHTER	HATCH	5A-6	1	249.19	87.17	21,721.9	612.67	152,671.2	0	0	
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			24	5,980.56	54.32	324,824.9	527.12	3,152,447.2	0	0	

LOADING FORM

CONDITION: 3. 100% CARGO DEPART, LGTRS @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE: — 86

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	249.19	27.00	6,728.1	649.34	161,809.0	0	0	
LIGHTER	HOLD	6A-3	1	249.19	41.17	10,259.2	649.34	161,809.0	0	0	
LIGHTER	HOLD	6A-4	1	249.19	55.33	13,787.7	649.34	161,809.0	0	0	
LIGHTER	HATCH	6A-5	1	249.19	73.00	18,190.9	649.34	161,809.0	0	0	
LIGHTER	HATCH	6A-6	1	249.19	87.17	21,721.9	649.34	161,809.0	0	0	
LIGHTER	HOLD	6B-2	1	249.19	27.00	6,728.1	686.01	170,946.8	0	0	
LIGHTER	HOLD	6B-3	1	249.19	41.17	10,259.2	686.01	170,946.8	0	0	
LIGHTER	HOLD	6B-4	1	249.19	55.33	13,787.7	686.01	170,946.8	0	0	
LIGHTER	HATCH	6B-5	1	249.19	73.00	18,190.9	686.01	170,946.8	0	0	
LIGHTER	HATCH	6B-6	1	249.19	87.17	21,721.9	686.01	170,946.8	0	0	
LIGHTER	HOLD	7A-3	1	249.19	41.50	10,341.4	722.67	180,082.1	0	0	
LIGHTER	HOLD	7A-4	1	249.19	55.67	13,872.4	722.67	180,082.1	0	0	
LIGHTER	HATCH	7A-5	1	249.19	73.00	18,190.9	722.67	180,082.1	0	0	
LIGHTER	HATCH	7A-6	1	249.19	87.17	21,721.9	722.67	180,082.1	0	0	
LIGHTER	HOLD	7B-3	1	249.19	41.50	10,341.4	759.34	189,219.9	0	0	
LIGHTER	HOLD	7B-4	1	249.19	55.67	13,872.4	759.34	189,219.9	0	0	
LIGHTER	HATCH	7B-5	1	249.19	73.00	18,190.9	759.34	189,219.9	0	0	
LIGHTER	HATCH	7B-6	1	249.19	87.17	21,721.9	759.34	189,219.9	0	0	
LIGHTER	HATCH	SG-5	1	249.19	68.17	16,987.3	795.99	198,352.8	0	0	
LIGHTER	HATCH	SG-6	1	249.19	82.33	20,515.8	795.99	198,352.8	0	0	
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			20	4,983.80	61.63	307,131.9	709.84	3,537,692.6	0	0	



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LOADING FORM SUMMARY

CONDITION: 4. 100% CARGO ARRIVAL, LGTRS @ 249.19, LGTRS 2 HIGH MN DK — BY: — DATE: — 88

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201.	432.68	7,147,078	- 0.11	- 1,768.7	—	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	—	
CONSUMABLES & STORES		35.00	56.00	1,960.0	95.00	3,325.0	- 0.02	- 0.5	—	
SW BALLAST		9,158.94	21.28	194,946.8	367.81	3,368,720.8	0	0	0	
FRESH WATER	10 %	78.86	31.88	2,509.0	612.28	48,284.2	0	0	743.2	
FLUMES	35 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	
FUEL OIL	32 %	2,418.19	13.84	33,415.2	438.95	1,059,628.6	- 0.06	- 133.2	16,747.2	
DIESEL OIL	10 %	11.35	8.72	99.0	564.14	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL	10 %	16.26	25.34	412.0	606.92	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	15	3,737.85	57.38	214,473.1	214.22	800,729.1	0	0	—	
LIGHTERS HOLDS 2 & 3	30	7,475.70	49.20	367,767.5	355.93	2,660,883.0	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	24	5,980.56	54.32	324,824.5	527.12	3,152,447.2	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	20	4,983.80	61.63	307,131.9	709.84	3,537,692.6	0	0	—	
TOTAL DISPLACEMENT		51,030.45	41.23	2,103,857.6	429.34	21,909,1833	- 0.04	- 1,860.6	59,594.9	

DRAFT AT LCF	35.00 FT.	LCF AFT FP	457.24 FT	KM_t	46.14 FT.
LCG AFT FP	429.34 FT.	DRAFT @ FP	32.95 FT.	KG ABV. KEEL	41.32 FT.
LCB AFT FP	422.58 FT.	DRAFT @ AP	36.53 FT.	GM	4.82 FT.
TRIM LEVER (+AFT/-FWD)	6.76 FT.	DRAFT @ FWD D.M.	32.96 FT.	FS CORRN	1.17 FT.
MTI"	7981.2 FT-TONS	DRAFT @ ⊗ D.M.	34.73 FT.	GM AVAILABLE	3.65 FT.
TRIM (+AFT/-FWD)	3.60 FT.	DRAFT @ AFT D.M.	36.14 FT.	GM REQUIRED	2.72 FT.
		TPI	158.6 TONS	HEEL (+PORT/-STBD)	0.81 DEGREES

LOADING FORM

CONDITION: 4. 100% CARGO ARRIVAL, LGTRS @ 249.19, LGTRS 2 HIGH MN DK

BY: DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,457.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,457.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P	100 %	1,339.24	34.11	45,681.5	302.30	404,852.3	+ 42.29	+ 56,636.5	0	
#2 WING SW BALLAST S	100 %	1,339.24	34.11	45,681.5	302.30	404,852.3	- 42.29	- 56,636.5	0	
#2A WING SW BALLAST P	100 %	1,375.66	32.82	45,149.2	374.36	514,992.1	+ 42.89	+ 59,002.1	0	
#2A WING SW BALLAST S	100 %	1,375.66	32.82	45,149.2	374.36	514,992.1	- 42.89	- 59,002.1	0	
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.2	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.2	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P	100 %	676.79	3.57	2,416.1	499.74	338,219.0	+ 20.74	+ 14,036.6	0	
#4 DB SW BALLAST S	100 %	676.79	3.57	2,416.1	499.74	338,219.0	- 20.74	- 14,036.6	0	
#4 WING SW BALLAST P		0			520.73		+ 42.64			
#4 WING SW BALLAST S		0			520.73		- 42.64			
#7 SW BALLAST P		0			736.77		+ 22.48			
#7 SW BALLAST S		0			737.18		- 30.53			
AFT SW BALLAST P		0			793.22		+ 20.16			
AFT SW BALLAST S		0			793.22		- 20.16			
TOTAL SW BALLAST		9,158.94	21.28	194,946.8	367.81	3,368,770.8	0	0	0	
FRESH WATER TANKS										
DISTILLED WATER P	10 %	24.29	39.02	947.8	613.13	14,892.9	+ 43.77	+ 1,063.2	253.8	
DISTILLED WATER S	10 %	24.29	39.02	947.8	613.13	14,892.9	- 43.77	- 1,063.2	253.8	
POTABLE WATER P	10 %	15.14	20.26	306.7	610.91	9,249.2	+ 40.10	+ 607.1	137.8	
POTABLE WATER S	10 %	15.14	20.26	306.7	610.91	9,249.2	- 40.10	- 607.1	137.8	
TOTAL FRESH WATER	10 %	78.86	31.82	2,509.0	612.28	48,284.2	0	0	783.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	39 %	268.16	28.01	7,511.2	173.31	46,474.8	0	0	20,804.0	
AFT FLUME	33 %	326.71	10.61	3,466.2	209.97	68,599.3	0	0	20,943.0	
TOTAL FLUMES	35 %	594.87	18.45	10,977.6	193.44	115,074.1	0	0	41,747.0	

LOADING FORM

CONDITION: 4. 100% CARGO ARRIVAL, LGTRS @ 249.19, LGTRS 2 HIGH MN DK

BY: DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	33 %	331.41	9.03	2,992.6	127.80	42,354.2	+ 10.12	+ 3,353.9	2,358.8	
FUEL OIL STORAGE S	33 %	331.41	9.03	2,992.6	127.80	42,354.2	- 10.12	- 3,353.9	2,358.8	
#3 WING FUEL OIL P	33 %	433.62	16.81	7,289.2	447.56	194,071.0	+ 42.81	+ 18,563.3	544.6	
#3 WING FUEL OIL S	33 %	433.62	16.81	7,289.2	447.56	194,071.0	- 42.81	- 18,563.3	544.6	
#6 WING FUEL OIL P	33 %	432.12	14.81	6,399.7	663.88	286,875.8	+ 34.53	+ 14,921.1	4,459.3	
#6 WING FUEL OIL S	33 %	451.81	14.28	6,451.9	663.78	299,908.4	- 33.32	- 15,054.3	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	33 %	2,413.99	13.84	33,418.2	438.95	1,059,628.6	- 0.06	- 133.2	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	10 %	5.61	8.01	44.9	564.83	3,168.7	+ 40.57	+ 227.6	75.2	
DIESEL OIL S	10 %	5.61	8.01	44.9	564.83	3,168.7	- 40.57	- 227.6	75.2	
400 GAL. DSL GEN DAY P	10 %	0.13	70.81	9.2	574.56	74.7	+ 48.42	+ 6.3	0.1	
TOTAL DIESEL OIL	10 %	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	10 %	2.84	47.93	136.1	590.66	1,677.5	+ 26.00	+ 73.8	91.3	
LUBE OIL STORAGE DSL GEN P	10 %	0.42	47.93	20.1	590.66	248.1	+ 1.33	+ 0.6	9.3	
LUBE OIL GRAVITY S	10 %	1.48	48.00	71.0	590.66	874.2	- 4.00	- 5.9	6.0	
LUBE OIL SETTLING P	10 %	2.02	48.34	97.7	590.47	1,192.8	- 9.83	- 19.9	46.1	
MAIN LUBE OIL SUMP	50 %	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	10 %	16.26	25.34	412.0	606.92	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM

CONDITION: 4. 100% CARGO ARRIVAL, LGTR @ 249.19, LGTRS 2 HIGH MN DK

BY: DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	249.19	43.00	10,715.2	172.67	43,027.6	0	0	
LIGHTER HOLD 1A-4	1	249.19	57.17	14,246.2	172.67	43,027.6	0	0	
LIGHTER HATCH 1A-5	1	249.19	74.50	18,564.7	172.67	43,027.6	0	0	
LIGHTER HATCH 1A-6	1	249.19	88.67	22,095.7	172.67	43,027.6	0	0	
LIGHTER HOLD 1B-2	1	249.19	28.50	7,101.9	209.33	52,162.9	0	0	
LIGHTER HOLD 1B-3	1	249.19	42.67	10,632.9	209.33	52,162.9	0	0	
LIGHTER HOLD 1B-4	1	249.19	56.83	14,161.5	209.33	52,162.9	0	0	
LIGHTER HATCH 1B-5	1	249.19	74.50	18,564.7	209.33	52,162.9	0	0	
LIGHTER HATCH 1B-6	1	249.19	88.67	22,095.7	209.33	52,162.9	0	0	
LIGHTER HOLD 1C-1	1	249.19	14.50	3,613.3	246.00	61,300.7	0	0	
LIGHTER HOLD 1C-2	1	249.19	28.67	7,144.3	246.00	61,300.7	0	0	
LIGHTER HOLD 1C-3	1	249.19	42.83	10,672.8	246.00	61,300.7	0	0	
LIGHTER HOLD 1C-4	1	249.19	57.00	14,203.8	246.00	61,300.7	0	0	
LIGHTER HATCH 1C-5	1	249.19	74.50	18,564.7	246.00	61,300.7	0	0	
LIGHTER HATCH 1C-6	1	249.19	88.67	22,095.7	246.00	61,300.7	0	0	
TOTAL LIGHTER HOLD 1	15	3737.85	57.38	214,473.1	214.22	800,729.1	0	0	

LOADING FORM

CONDITION: 4. 100% CARGO ARRIVAL, LGTRS @ 249.19, LGTRS 2 HIGH MN DK

BY: DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	249.19	12.50	3,114.9	282.67	70,438.5	0	0	
LIGHTER HOLD 2A - 2	1	249.19	26.67	6,645.9	282.67	70,438.5	0	0	
LIGHTER HOLD 2A - 3	1	249.19	40.83	10,174.4	282.67	70,438.5	0	0	
LIGHTER HOLD 2A - 4	1	249.19	55.00	13,705.5	282.67	70,438.5	0	0	
LIGHTER HATCH 2A - 5	1	249.19	73.00	18,190.9	282.67	70,438.5	0	0	
LIGHTER HATCH 2A - 6	1	249.19	87.17	21,721.9	282.67	70,438.5	0	0	
LIGHTER HOLD 2B - 1	1	249.19	12.50	3,114.9	319.33	79,573.8	0	0	
LIGHTER HOLD 2B - 2	1	249.19	26.67	6,645.9	319.33	79,573.8	0	0	
LIGHTER HOLD 2B - 3	1	249.19	40.83	10,174.4	319.33	79,573.8	0	0	
LIGHTER HOLD 2B - 4	1	249.19	55.00	13,705.5	319.33	79,573.8	0	0	
LIGHTER HATCH 2B - 5	1	249.19	73.00	18,190.9	319.33	79,573.8	0	0	
LIGHTER HATCH 2B - 6	1	249.19	87.17	21,721.9	319.33	79,573.8	0	0	
LIGHTER HOLD 2C - 1	1	249.19	12.50	3,114.9	356.00	88,711.6	0	0	
LIGHTER HOLD 2C - 2	1	249.19	26.67	6,645.9	356.00	88,711.6	0	0	
LIGHTER HOLD 2C - 3	1	249.19	40.83	10,174.4	356.00	88,711.6	0	0	
LIGHTER HOLD 2C - 4	1	249.19	55.00	13,705.5	356.00	88,711.6	0	0	
LIGHTER HATCH 2C - 5	1	249.19	73.00	18,190.9	356.00	88,711.6	0	0	
LIGHTER HATCH 2C - 6	1	249.19	87.17	21,721.9	356.00	88,711.6	0	0	
LIGHTER HOLD 3A - 1	1	249.19	12.50	3,114.9	392.67	97,849.4	0	0	
LIGHTER HOLD 3A - 2	1	249.19	26.67	6,645.9	392.67	97,849.4	0	0	
LIGHTER HOLD 3A - 3	1	249.19	40.83	10,174.4	392.67	97,849.4	0	0	
LIGHTER HOLD 3A - 4	1	249.19	55.00	13,705.5	392.67	97,849.4	0	0	
LIGHTER HATCH 3A - 5	1	249.19	73.00	18,190.9	392.67	97,849.4	0	0	
LIGHTER HATCH 3A - 6	1	249.19	87.17	21,721.9	392.67	97,849.4	0	0	
LIGHTER HOLD 3B - 1	1	249.19	12.50	3,114.9	429.34	106,987.2	0	0	
LIGHTER HOLD 3B - 2	1	249.19	26.67	6,645.9	429.34	106,987.2	0	0	
LIGHTER HOLD 3B - 3	1	249.19	40.83	10,174.4	429.34	106,987.2	0	0	
LIGHTER HOLD 3B - 4	1	249.19	55.00	13,705.5	429.34	106,987.2	0	0	
LIGHTER HATCH 3B - 5	1	249.19	73.00	18,190.9	429.34	106,987.2	0	0	
LIGHTER HATCH 3B - 6	1	249.19	87.17	21,721.9	429.34	106,987.2	0	0	
TOTAL LIGHTERS HOLD 2 & 3	30	7,475.70	44.80	367,762.5	355.95	2,660,828.0	0	0	

LOADING FORM

CONDITION: 4. 100% CARGO ARRIVAL, LGTRS @ 249.19, LGTRS 2 HIGH MN DK

BY: DATE:

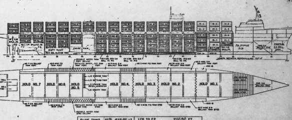
HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	249.19	12.50	3,114.9	466.01	116,125.0	0	0	
LIGHTER	HOLD	4A-2	1	249.19	26.67	6,645.9	466.01	116,125.0	0	0	
LIGHTER	HOLD	4A-3	1	249.19	40.83	10,174.4	466.01	116,125.0	0	0	
LIGHTER	HOLD	4A-4	1	249.19	55.00	13,750.5	466.01	116,125.0	0	0	
LIGHTER	HATCH	4A-5	1	249.19	73.00	18,190.9	466.01	116,125.0	0	0	
LIGHTER	HATCH	4A-6	1	249.19	87.17	21,721.9	466.01	116,125.0	0	0	
LIGHTER	HOLD	4B-1	1	249.19	12.50	3,114.9	502.67	125,260.3	0	0	
LIGHTER	HOLD	4B-2	1	249.19	26.67	6,645.9	502.67	125,260.3	0	0	
LIGHTER	HOLD	4B-3	1	249.19	40.83	10,174.4	502.67	125,260.3	0	0	
LIGHTER	HOLD	4B-4	1	249.19	55.00	13,750.5	502.67	125,260.3	0	0	
LIGHTER	HATCH	4B-5	1	249.19	73.00	18,190.9	502.67	125,260.3	0	0	
LIGHTER	HATCH	4B-6	1	249.19	87.17	21,721.9	502.67	125,260.3	0	0	
LIGHTER	HOLD	4C-1	1	249.19	12.50	3,114.9	539.34	134,398.1	0	0	
LIGHTER	HOLD	4C-2	1	249.19	26.67	6,645.9	539.34	134,398.1	0	0	
LIGHTER	HOLD	4C-3	1	249.19	40.83	10,174.4	539.34	134,398.1	0	0	
LIGHTER	HOLD	4C-4	1	249.19	55.00	13,750.5	539.34	134,398.1	0	0	
LIGHTER	HATCH	4C-5	1	249.19	73.00	18,190.9	539.34	134,398.1	0	0	
LIGHTER	HATCH	4C-6	1	249.19	87.17	21,721.9	539.34	134,398.1	0	0	
LIGHTER	HATCH	ER-5	1	249.19	73.00	18,190.9	575.99	143,531.0	0	0	
LIGHTER	HATCH	ER-6	1	249.19	87.17	21,721.9	575.99	143,531.0	0	0	
LIGHTER	HOLD	5A-3	1	249.19	41.50	10,341.4	612.67	152,671.2	0	0	
LIGHTER	HOLD	5A-4	1	249.19	55.67	13,872.4	612.67	152,671.2	0	0	
LIGHTER	HATCH	5A-5	1	249.19	73.00	18,190.9	612.67	152,671.2	0	0	
LIGHTER	HATCH	5A-6	1	249.19	87.17	21,721.9	612.67	152,671.2	0	0	
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			24	5,980.56	54.82	324,834.9	527.12	3,152,447.2	0	0	

LOADING FORM

CONDITION: 4. 100% CARGO ARRIVAL, LGTRS @ 249.19, LGTRS 2 HIGH MN DK

BY: DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	249.19	27.00	6,728.1	649.34	161,809.0	0	0	
LIGHTER	HOLD	6A-3	1	249.19	41.17	10,259.2	649.34	161,809.0	0	0	
LIGHTER	HOLD	6A-4	1	249.19	55.33	13,787.7	649.34	161,809.0	0	0	
LIGHTER	HATCH	6A-5	1	249.19	73.00	18,190.9	649.34	161,809.0	0	0	
LIGHTER	HATCH	6A-6	1	249.19	87.17	21,721.9	649.34	161,809.0	0	0	
LIGHTER	HOLD	6B-2	1	249.19	27.00	6,728.1	686.01	170,946.8	0	0	
LIGHTER	HOLD	6B-3	1	249.19	41.17	10,259.2	686.01	170,946.8	0	0	
LIGHTER	HOLD	6B-4	1	249.19	55.33	13,787.7	686.01	170,946.8	0	0	
LIGHTER	HATCH	6B-5	1	249.19	73.00	18,190.9	686.01	170,946.8	0	0	
LIGHTER	HATCH	6B-6	1	249.19	87.17	21,721.9	686.01	170,946.8	0	0	
LIGHTER	HOLD	7A-3	1	249.19	41.50	10,341.4	722.67	180,082.1	0	0	
LIGHTER	HOLD	7A-4	1	249.19	55.67	13,872.4	722.67	180,082.1	0	0	
LIGHTER	HATCH	7A-5	1	249.19	73.00	18,190.9	722.67	180,082.1	0	0	
LIGHTER	HATCH	7A-6	1	249.19	87.17	21,721.9	722.67	180,082.1	0	0	
LIGHTER	HOLD	7B-3	1	249.19	41.50	10,341.4	759.34	189,219.9	0	0	
LIGHTER	HOLD	7B-4	1	249.19	55.67	13,872.4	759.34	189,219.9	0	0	
LIGHTER	HATCH	7B-5	1	249.19	73.00	18,190.9	759.34	189,219.9	0	0	
LIGHTER	HATCH	7B-6	1	249.19	87.17	21,721.9	759.34	189,219.9	0	0	
LIGHTER	HATCH	SG-5	1	249.19	68.17	16,987.3	795.99	198,352.8	0	0	
LIGHTER	HATCH	SG-6	1	249.19	82.33	20,515.8	795.99	198,352.8	0	0	
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			20	4,983.80	61.63	307,151.9	709.84	3,537,612.6	0	0	



CONDITION NO. 5

5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK

DRY CARGO 21,296.81 LT

FLUME TANKS	50% 873.52	LT
LUBE OIL	98% 77.16	LT
DIESEL OIL	98% 113.52	LT
FUEL OIL	98% 5,841.98	LT
FRESH WATER	100% 788.72	LT
S.W. BALLAST	3,729.14	LT
CREW & STORES	135.00	LT
DEADWEIGHT	34,245.32	LT
DISPLACEMENT	50,764.12	LT
LIGHTSHIP	16,518.87	LT

LCB TO FP	422.90	FT
LCF TO FP	457.25	FT
LCG TO FP	440.81	FT
TRIM	9.78	FT AFT
MOMENT TO TRIM 1"	7965.8	FT. TONS
TONS PER INCH IMM.	158.5	
DRAFT: LCF	34.86	FT
DRAFT FWD	29.32	FT
DRAFT ⊗	34.14	FT
DRAFT AFT	37.98	FT

STABILITY		
KM	46.15	FT
KG	41.31	FT
GM	4.84	FT
FREE SURF. CORRECTION	1.17	FT
GM AVAILABLE	3.67	FT
GM REQUIRED	2.72	FT
LIGHTERS	89 @ 239.29	

LOADING KEY: DRY CARGO; FUEL OIL; S.W. BALLAST; FRESH WATER; EMPTY

LOADING FORM SUMMARY

CONDITION: 5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK

BY: DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.87	38.94	643,201	432.68	7,147,078	- 0.11	- 1,768.7	——	
CREW & EFFECTS		35.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	——	
CONSUMABLES & STORES		100.00	56.00	5,600.0	95.00	9,500.0	- 0.02	- 2.0	——	
SW BALLAST		3,729.14	3.56	13,285.4	410.04	1,529,082.0	0	0	0	
FRESH WATER	100%	788.72	39.69	31,303.6	612.28	482,915.6	0	0	793.2	
FLUMES	50%	873.52	19.44	16,980.3	192.91	168,510.0	0	0	41,747.0	
FUEL OIL	98%	7,841.98	26.88	209,164.4	438.95	3,178,886.0	- 0.06	- 399.3	16,747.2	
DIESEL OIL	98%	113.52	16.45	1,867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL	98%	77.16	46.87	3,616.4	594.44	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	15	3,589.35	57.38	205,952.0	214.22	768,917.6	0	0	——	
LIGHTERS HOLDS 2 & 3	30	7,178.70	44.20	352,156.5	356.00	2,555,621.6	0	0	——	
LIGHTERS HOLDS 4, ENG. RM., & 5	24	5,742.96	54.29	311,799.9	527.12	3,027,205.2	0	0	——	
LIGHTERS HOLDS 6,7, & STG. GR.	20	4,785.80	61.63	294,959.8	709.84	3,397,195.3	0	0	——	
TOTAL DISPLACEMENT		50,764.12	41.22	2,098,607.2	440.81	22,377,214.4	- 0.03	- 1,622.5	59,594.9	

DRAFT AT LCF	34.86	FT.
LCG AFT FP	440.81	FT.
LCB AFT FP	422.90	FT.
TRIM LEVER (+AFT/-FWD)	18.41	FT.
MT1"	7965.8	FT-TONS
TRIM (+AFT/-FWD)	9.78	FT.
LCF AFT FP	457.25	FT
DRAFT @ FP	29.25	FT.
DRAFT @ AP	39.03	FT.
DRAFT @ FWD D.M.	29.32	FT.
DRAFT @ ⊗ D.M.	34.14	FT.
DRAFT @ AFT D.M.	37.98	FT.
TPI	158.5	TONS
KM_t	46.15	FT.
KG ABV. KEEL	41.31	FT.
GM	4.84	FT.
FS CORRN	1.17	FT.
GM AVAILABLE	3.67	FT.
GM REQUIRED	2.72	FT.
HEEL (+PORT/-STBD)	0.50	DEGREES

RED. 8X DATE 7-81
MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 13

LOADING FORM 97

CONDITION: 5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK | BY: | DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.- TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,457.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,457.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P		0			302.30		+ 42.29			
#2 WING SW BALLAST S		0			302.30		- 42.29			
#2A WING SW BALLAST P		0			374.36		+ 42.89			
#2A WING SW BALLAST S		0			374.36		- 42.89			
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.2	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.2	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P	100 %	676.79	3.57	2,416.1	499.74	338,219.0	+ 20.74	+ 14,036.6	0	
#4 DB SW BALLAST S	100 %	676.79	3.57	2,416.1	499.74	338,219.0	- 20.74	- 14,036.6	0	
#4 WING SW BALLAST P		0			520.73		+ 42.64			
#4 WING SW BALLAST S		0			520.73		- 42.64			
#7 SW BALLAST P		0			736.77		+ 22.48			
#7 SW BALLAST S		0			737.18		- 30.53			
AFT SW BALLAST P		0			793.22		+ 20.16			
AFT SW BALLAST S		0			793.22		- 20.16			
TOTAL SW BALLAST		3,729.14	3.56	13,285.4	410.04	1,529,082.0	0	0	0	
FRESH WATER TANKS										
DISTILLED WATER P	100 %	242.93	47.58	11,558.6	613.13	148,947.7	+ 43.77	+ 10,633.0	233.3	
DISTILLED WATER S	100 %	242.93	47.58	11,558.6	613.13	148,947.7	- 43.77	- 10,633.0	233.8	
POTABLE WATER P	100 %	151.43	27.03	4,093.2	610.91	92,510.1	+ 40.10	+ 6,072.3	137.8	
POTABLE WATER S	100 %	151.43	27.03	4,093.2	610.91	92,510.1	- 40.10	- 6,072.3	137.8	
TOTAL FRESH WATER	100 %	788.72	39.69	31,303.6	612.28	482,915.6	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	59 %	406.52	29.03	11,801.3	173.31	70,454.0	0	0	20,804.0	
AFT FLUME	47 %	467.00	11.09	5,179.0	209.97	98,056.0	0	0	20,943.0	
TOTAL FLUMES	52 %	873.52	19.44	16,980.3	192.91	168,510.0	0	0	41,747.0	

LOADING FORM 98

CONDITION: 5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK | BY: | DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	98%	994.24	20.79	20,670.3	127.80	127,063.9	+ 10.12	+ 10,061.7	2,558.6	
FUEL OIL STORAGE S	98%	994.24	20.79	20,670.3	127.80	127,063.9	- 10.12	- 10,061.7	2,558.6	
#3 WING FUEL OIL P	98 %	1300.85	33.07	43,019.1	447.56	582,208.4	+ 42.81	+ 55,689.4	549.6	
#3 WING FUEL OIL S	98 %	1300.85	33.07	43,019.1	447.56	582,208.4	- 42.81	- 55,689.4	549.6	
#6 WING FUEL OIL P	98 %	1296.37	31.23	40,485.6	663.88	860,684.1	+ 34.53	+ 44,763.7	4,458.3	
#6 WING FUEL OIL S	98 %	1355.43	30.47	41,300.0	663.78	899,707.3	- 33.32	- 45,162.9	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	98 %	7241.98	28.88	209,164.4	438.95	3,178,886.0	- 0.06	- 399.2	16,747.8	
DIESEL OIL TANKS										
DIESEL OIL P	98%	56.13	15.82	888.0	564.83	31,703.9	+ 40.57	+ 2277.2	75.2	
DIESEL OIL S	98%	56.13	15.82	888.0	564.83	31,703.9	- 40.57	- 2277.2	75.8	
400 GAL. DSL GEN DAY P	98%	1.26	72.93	91.9	574.56	724.0	+ 48.42	+ 61.0	0.1	
TOTAL DIESEL OIL	98%	113.52	16.45	1867.9	569.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	98%	28.43	51.88	1475.0	590.66	16,792.5	+ 26.00	+ 739.2	91.3	
LUBE OIL STORAGE DSL GEN P	98%	4.22	51.87	218.9	590.66	2,492.6	+ 1.33	+ 5.6	0.3	
LUBE OIL GRAVITY S	98%	14.80	52.62	778.8	590.66	8,741.8	- 4.00	- 59.2	8.0	
LUBE OIL SETTLING P	98%	20.81	50.78	1056.6	590.47	11,922.4	- 9.83	- 198.7	46.1	
MAIN LUBE OIL SUMP	98%	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	98%	77.16	46.87	3616.4	594.04	45,826.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM 99

CONDITION: 5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK | BY: | DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	239.29	43.00	10,289.5	172.67	41,318.2	0	0	
LIGHTER HOLD 1A-4	1	239.29	57.17	13,680.2	172.67	41,318.2	0	0	
LIGHTER HATCH 1A-5	1	239.29	74.50	17,827.1	172.67	41,318.2	0	0	
LIGHTER HATCH 1A-6	1	239.29	88.67	21,217.8	172.67	41,318.2	0	0	
LIGHTER HOLD 1B-2	1	239.29	28.50	6,819.8	209.33	50,090.6	0	0	
LIGHTER HOLD 1B-3	1	239.29	42.67	10,210.5	209.33	50,090.6	0	0	
LIGHTER HOLD 1B-4	1	239.29	56.83	13,598.9	209.33	50,090.6	0	0	
LIGHTER HATCH 1B-5	1	239.29	74.50	17,827.1	209.33	50,090.6	0	0	
LIGHTER HATCH 1B-6	1	239.29	88.67	21,217.8	209.33	50,090.6	0	0	
LIGHTER HOLD 1C-1	1	239.29	14.50	3,469.7	246.00	58,865.3	0	0	
LIGHTER HOLD 1C-2	1	239.29	28.67	6,860.4	246.00	58,865.3	0	0	
LIGHTER HOLD 1C-3	1	239.29	42.83	10,248.8	246.00	58,865.3	0	0	
LIGHTER HOLD 1C-4	1	239.29	57.00	13,639.5	246.00	58,865.3	0	0	
LIGHTER HATCH 1C-5	1	239.29	74.50	17,827.1	246.00	58,865.3	0	0	
LIGHTER HATCH 1C-6	1	239.29	88.67	21,217.8	246.00	58,865.3	0	0	
TOTAL LIGHTER HOLD 1	15	3,589.35	57.38	205,952.0	214.22	768,917.6	0	0	

LOADING FORM 100

CONDITION: 5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK | BY: | DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	239.29	12.50	2,991.1	282.67	67,640.1	0	0	
LIGHTER HOLD 2A - 2	1	239.29	26.67	6,381.9	282.67	67,640.1	0	0	
LIGHTER HOLD 2A - 3	1	239.29	40.83	9,770.2	282.67	67,640.1	0	0	
LIGHTER HOLD 2A - 4	1	239.29	55.00	13,161.0	282.67	67,640.1	0	0	
LIGHTER HATCH 2A - 5	1	239.29	73.00	17,468.2	282.67	67,640.1	0	0	
LIGHTER HATCH 2A - 6	1	239.29	87.17	20,858.9	282.67	67,640.1	0	0	
LIGHTER HOLD 2B - 1	1	239.29	12.50	2,991.1	319.33	76,412.5	0	0	
LIGHTER HOLD 2B - 2	1	239.29	26.67	6,381.9	319.33	76,412.5	0	0	
LIGHTER HOLD 2B - 3	1	239.29	40.83	9,770.2	319.33	76,412.5	0	0	
LIGHTER HOLD 2B - 4	1	239.29	55.00	13,161.0	319.33	76,412.5	0	0	
LIGHTER HATCH 2B - 5	1	239.29	73.00	17,468.2	319.33	76,412.5	0	0	
LIGHTER HATCH 2B - 6	1	239.29	87.17	20,858.9	319.33	76,412.5	0	0	
LIGHTER HOLD 2C - 1	1	239.29	12.50	2,991.1	356.00	85,187.2	0	0	
LIGHTER HOLD 2C - 2	1	239.29	26.67	6,381.9	356.00	85,187.2	0	0	
LIGHTER HOLD 2C - 3	1	239.29	40.83	9,770.2	356.00	85,187.2	0	0	
LIGHTER HOLD 2C - 4	1	239.29	55.00	13,161.0	356.00	85,187.2	0	0	
LIGHTER HATCH 2C - 5	1	239.29	73.00	17,468.8	356.00	85,187.2	0	0	
LIGHTER HATCH 2C - 6	1	239.29	87.17	20,858.9	356.00	85,187.2	0	0	
LIGHTER HOLD 3A - 1	1	239.29	12.50	2,991.1	392.67	93,962.0	0	0	
LIGHTER HOLD 3A - 2	1	239.29	26.67	6,381.9	392.67	93,962.0	0	0	
LIGHTER HOLD 3A - 3	1	239.29	40.83	9,770.2	392.67	93,962.0	0	0	
LIGHTER HOLD 3A - 4	1	239.29	55.00	13,161.0	392.67	93,962.0	0	0	
LIGHTER HATCH 3A - 5	1	239.29	73.00	17,468.2	392.67	93,962.0	0	0	
LIGHTER HATCH 3A - 6	1	239.29	87.17	20,858.9	392.67	93,962.0	0	0	
LIGHTER HOLD 3B - 1	1	239.29	12.50	2,991.1	429.34	102,736.8	0	0	
LIGHTER HOLD 3B - 2	1	239.29	26.67	6,381.9	429.34	102,736.8	0	0	
LIGHTER HOLD 3B - 3	1	239.29	40.83	9,770.2	429.34	102,736.8	0	0	
LIGHTER HOLD 3B - 4	1	239.29	55.00	13,161.0	429.34	102,736.8	0	0	
LIGHTER HATCH 3B - 5	1	239.29	73.00	17,468.2	429.34	102,736.8	0	0	
LIGHTER HATCH 3B - 6	1	239.29	87.17	20,858.9	429.34	102,736.8	0	0	
TOTAL LIGHTERS HOLD 2 & 3	30	7,178.70	49.20	353,156.5	356.00	2,555,631.6	0	0	

LOADING FORM 101

CONDITION: 5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK | BY: | DATE:

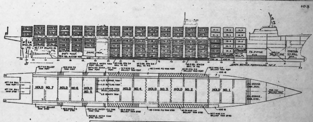
HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	239.29	12.50	2,991.1	466.01	111,511.5	0	0	
LIGHTER	HOLD	4A-2	1	239.29	26.67	6,381.9	466.01	111,511.5	0	0	
LIGHTER	HOLD	4A-3	1	239.29	40.83	9,770.2	466.01	111,511.5	0	0	
LIGHTER	HOLD	4A-4	1	239.29	55.00	13,161.0	466.01	111,511.5	0	0	
LIGHTER	HATCH	4A-5	1	239.29	73.00	17,468.2	466.01	111,511.5	0	0	
LIGHTER	HATCH	4A-6	1	239.29	87.17	20,858.9	466.01	111,511.5	0	0	
LIGHTER	HOLD	4B-1	1	239.29	12.50	2,991.1	502.67	120,283.9	0	0	
LIGHTER	HOLD	4B-2	1	239.29	26.67	6,381.9	502.67	120,283.9	0	0	
LIGHTER	HOLD	4B-3	1	239.29	40.83	9,770.2	502.67	120,283.9	0	0	
LIGHTER	HOLD	4B-4	1	239.29	55.00	13,161.0	502.67	120,283.9	0	0	
LIGHTER	HATCH	4B-5	1	239.29	73.00	17,468.2	502.67	120,283.9	0	0	
LIGHTER	HATCH	4B-6	1	239.29	87.17	20,858.9	502.67	120,283.9	0	0	
LIGHTER	HOLD	4C-1	1	239.29	12.50	2,991.1	539.34	129,058.7	0	0	
LIGHTER	HOLD	4C-2	1	239.29	26.67	6,381.9	539.34	129,058.7	0	0	
LIGHTER	HOLD	4C-3	1	239.29	40.83	9,770.2	539.34	129,058.7	0	0	
LIGHTER	HOLD	4C-4	1	239.29	55.00	13,161.0	539.34	129,058.7	0	0	
LIGHTER	HATCH	4C-5	1	239.29	73.00	17,468.2	539.34	129,058.7	0	0	
LIGHTER	HATCH	4C-6	1	239.29	87.17	20,858.9	539.34	129,058.7	0	0	
LIGHTER	HATCH	ER-5	1	239.29	73.00	17,468.2	575.99	137,828.7	0	0	
LIGHTER	HATCH	ER-6	1	239.29	87.17	20,858.9	575.99	137,828.7	0	0	
LIGHTER	HOLD	5A-3	1	239.29	41.50	9,930.5	612.67	146,605.8	0	0	
LIGHTER	HOLD	5A-4	1	239.29	55.67	13,321.3	612.67	146,605.8	0	0	
LIGHTER	HATCH	5A-5	1	239.29	73.00	17,468.2	612.67	146,605.8	0	0	
LIGHTER	HATCH	5A-6	1	239.29	87.17	20,858.9	612.67	146,605.8	0	0	
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			24	5,742.96	54.29	311,779.9	527.12	3,027,205.2	0	0	

LOADING FORM 102

CONDITION: 5. 50% CARGO DEPART, LGTRS @ 239.29, LGTRS 2 HIGH MN DK | BY: | DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	239.29	27.00	6,460.8	649.34	155,380.6	0	0	
LIGHTER	HOLD	6A-3	1	239.29	41.17	9,851.6	649.34	155,380.6	0	0	
LIGHTER	HOLD	6A-4	1	239.29	55.33	13,239.9	649.34	155,380.6	0	0	
LIGHTER	HATCH	6A-5	1	239.29	73.00	17,468.2	649.34	155,380.6	0	0	
LIGHTER	HATCH	6A-6	1	239.29	87.17	20,858.9	649.34	155,380.6	0	0	
LIGHTER	HOLD	6B-2	1	239.29	27.00	6,460.8	686.01	164,155.3	0	0	
LIGHTER	HOLD	6B-3	1	239.29	41.17	9,851.6	686.01	164,155.3	0	0	
LIGHTER	HOLD	6B-4	1	239.29	55.33	13,239.9	686.01	164,155.3	0	0	
LIGHTER	HATCH	6B-5	1	239.29	73.00	17,468.2	686.01	164,155.3	0	0	
LIGHTER	HATCH	6B-6	1	239.29	87.17	20,858.9	686.01	164,155.3	0	0	
LIGHTER	HOLD	7A-3	1	239.29	41.50	9,930.5	722.67	172,927.7	0	0	
LIGHTER	HOLD	7A-4	1	239.29	55.67	13,321.3	722.67	172,927.7	0	0	
LIGHTER	HATCH	7A-5	1	239.29	73.00	17,468.2	722.67	172,927.7	0	0	
LIGHTER	HATCH	7A-6	1	239.29	87.17	20,858.9	722.67	172,927.7	0	0	
LIGHTER	HOLD	7B-3	1	239.29	41.50	9,930.5	759.34	181,702.5	0	0	
LIGHTER	HOLD	7B-4	1	239.29	55.67	13,321.3	759.34	181,702.5	0	0	
LIGHTER	HATCH	7B-5	1	239.29	73.00	17,468.2	759.34	181,702.5	0	0	
LIGHTER	HATCH	7B-6	1	239.29	87.17	20,858.9	759.34	181,702.5	0	0	
LIGHTER	HATCH	SG-5	1	239.29	68.17	16,312.4	795.99	190,472.5	0	0	
LIGHTER	HATCH	SG-6	1	239.29	82.33	19,700.8	795.99	190,472.5	0	0	
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			20	4,785.80	61.63	294,929.8	709.84	3,397,146.3	0	0	

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CONDITION NO. 6	
6. 50% CARGO ARRIVAL LGTRS @ 239.29 LGTRS 2 HIGH MN DK	
DRY CARGO	23,177.41 LT

FLUME TANKS	52%	873.52	LT
LUBE OIL	10%	16.26	LT
DIESEL OIL	10%	11.35	LT
FUEL OIL	10%	724.20	LT
FRESH WATER	10%	78.86	LT
S.W. BALLAST		10,000.44	LT
CREW & STORES		70.00	LT
DEADWEIGHT			LT
DISPLACEMENT		51,579.71	LT
LIGHTSHIP		16,518.27	LT

LCB TO FP	432.96	FT
LCF TO FP	457.26	FT
LCG TO FP	432.36	FT
TRIM	5.04	FT AFT
MOMENT TO TRIM 1"	8012.9	FT. TONS
TONS PER INCH IMM.	158.8	
DRAFT LCF	35.29	FT
DRAFT FWD	32.44	FT
DRAFT ⊗	34.92	FT
DRAFT AFT	36.90	FT

STABILITY		
KM	46.10	FT
KG	41.38	FT
GM	4.72	FT
FREE SURF. CORRECTION	1.16	FT
GM AVAILABLE	3.56	FT
GM REQUIRED	2.70	FT
LIGHTERS	89 @ 239.29	

LOADING KEY: DRY CARGO; FUEL OIL; S.W. BALLAST; FRESH WATER; EMPTY

LOADING FORM SUMMARY 104

CONDITION: 6. 50% CARGO ARRIVAL, LGTRS @ 239.29, LGTRS 2 HIGH MN DK | BY: | DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201	432.68	7,147,078	- 0.11	-1,768.7	—	
CREW & EFFECTS		35.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	—	
CONSUMABLES & STORES		35.00	56.00	1,960.0	95.00	3,325.0	- 0.02	- 0.5	—	
SW BALLAST		10,000.44	29.22	292,203.4	404.02	4,040,425.2	0	0	0	
FRESH WATER	10%	78.86	31.88	2,514.0	612.28	48,284.2	0	0	743.3	
FLUMES	52%	873.52	19.44	16,980.0	192.41	168,510.0	0	0	41,747.0	
FUEL OIL	10%	724.20	8.85	6,411.2	438.96	317,898.1	- 0.05	- 39.7	16,747.2	
DIESEL OIL	10%	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL	10%	16.26	25.34	412.0	606.42	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	15	3,589.35	57.38	205,952.0	214.22	768,917.6	0	0	—	
LIGHTERS HOLDS 2 & 3	30	7,178.70	49.20	353,156.5	356.00	2,555,631.6	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	24	5,742.96	54.29	311,779.9	527.12	3,027,205.2	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	20	4,785.80	61.63	294,929.8	709.84	3,397,146.3	0	0	—	
TOTAL DISPLACEMENT		51,579.71	41.29	2,129,865.8	432.36	22,301,069.9	- 0.03	- 1,754.5	59,594.9	

DRAFT AT LCF	35.29	FT.
LCG AFT FP	432.36	FT.
LCB AFT FP	432.96	FT.
TRIM LEVER (+AFT/-FWD)	9.40	FT.
MT1"	8012.9	FT-TONS
TRIM (+AFT/-FWD)	5.04	FT.

LCF AFT FP	457.26	FT
DRAFT @ FP	32.40	FT.
DRAFT @ AP	37.44	FT.
DRAFT @ FWD D.M.	32.44	FT.
DRAFT @ ⊗ D.M.	34.92	FT.
DRAFT @ AFT D.M.	36.90	FT.
TPI	158.8	TONS

KM	46.10	FT.
KG ABV. KEEL	41.38	FT.
GM	4.72	FT.
FS CORRN	1.16	FT.
GM AVAILABLE	3.56	FT.
GM REQUIRED	2.70	FT.
HEEL (+PORT/-STBD)	0.65	DEGREES

LOADING FORM

CONDITION: 6. 50% CARGO ARRIVAL, LGTRS @ 239.29, LGTRS 2 HIGH MN DK — BY: — DATE: — 105

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,457.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,457.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P	100 %	1,339.24	34.11	45,681.5	302.30	404,852.3	+ 42.29	+ 56,636.5	0	
#2 WING SW BALLAST S	100 %	1,339.24	34.11	45,681.5	302.30	404,852.3	- 42.29	- 56,636.5	0	
#2A WING SW BALLAST P	100 %	1,375.66	32.82	45,149.2	374.36	514,992.1	+ 42.89	+ 59,002.1	0	
#2A WING SW BALLAST S	100 %	1,375.66	32.82	45,149.2	374.36	514,992.1	- 42.89	- 59,002.1	0	
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.2	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.2	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P	100 %	676.79	3.57	2,416.1	499.74	338,219.0	+ 20.74	+ 14,036.6	0	
#4 DB SW BALLAST S	100 %	676.79	3.57	2,416.1	499.74	338,219.0	- 20.74	- 14,036.6	0	
#4 WING SW BALLAST P	100 %	1,420.75	33.70	47,879.3	520.73	739,837.2	+ 42.64	+ 60,580.8	0	
#4 WING SW BALLAST S	100 %	1,420.75	33.70	47,879.3	520.73	739,837.2	- 42.64	- 60,580.8	0	
#7 SW BALLAST P		0			736.77		+ 22.48			
#7 SW BALLAST S		0			737.18		- 30.53			
AFT SW BALLAST P		0			793.22		+ 20.16			
AFT SW BALLAST S		0			793.22		- 20.16			
TOTAL SW BALLAST		18,000.44	24.22	290,705.4	404.02	4,848,428.8	0	0	0	
FRESH WATER TANKS										
DISTILLED WATER P	10 %	24.29	39.02	947.8	613.13	14,892.9	+ 43.77	+ 1,063.2	253.8	
DISTILLED WATER S	10 %	24.29	39.02	947.8	613.13	14,892.9	- 43.77	- 1,063.2	253.8	
POTABLE WATER P	10 %	15.14	20.26	306.7	610.91	9,249.2	+ 40.10	+ 607.1	187.8	
POTABLE WATER S	10 %	15.14	20.26	306.7	610.91	9,249.2	- 40.10	- 607.1	187.8	
TOTAL FRESH WATER	10 %	78.86	31.82	2,509.0	612.28	48,284.2	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	59 %	406.52	29.03	11,801.3	173.31	70,454.0	0	0	20,804.0	
AFT FLUME	47 %	467.00	11.09	5,179.0	209.97	98,056.0	0	0	20,943.0	
TOTAL FLUMES	52 %	873.52	19.44	16,980.3	192.91	168,510.0	0	0	41,747.0	

LOADING FORM

CONDITION: 6. 50% CARGO ARRIVAL, LGTRS @ 239.29, LGTRS 2 HIGH MN DK — BY: — DATE: — 106

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	10 %	99.92	3.64	361.9	127.80	12,705.9	+ 10.12	+ 1,006.1	2,358.8	
FUEL OIL STORAGE S	10 %	99.92	3.64	361.9	127.80	12,705.9	- 10.12	- 1,006.1	2,358.8	
#3 WING FUEL OIL P	10 %	130.09	11.25	1,463.5	447.56	58,223.1	+ 42.81	+ 5,565.3	549.6	
#3 WING FUEL OIL S	10 %	130.09	11.25	1,463.5	447.56	58,223.1	- 42.81	- 5,565.3	549.6	
#6 WING FUEL OIL P	10 %	129.64	10.66	1,382.0	663.88	86,062.4	+ 34.53	+ 4,476.6	4,453.3	
#6 WING FUEL OIL S	10 %	135.54	10.17	1,378.4	663.78	89,968.7	- 33.32	- 4,516.2	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	10 %	724.20	8.85	6,411.2	438.96	317,892.1	- 0.05	- 37.7	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	10 %	5.61	8.01	44.9	564.83	3,168.7	+ 40.57	+ 227.6	75.2	
DIESEL OIL S	10 %	5.61	8.01	44.9	564.83	3,168.7	- 40.57	- 227.6	75.2	
400 GAL. DSL GEN DAY P	10 %	0.13	70.81	9.2	574.56	74.7	+ 48.42	+ 6.3	0.1	
TOTAL DIESEL OIL	10 %	11.35	8.72	99.0	569.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	10 %	2.84	47.93	136.1	590.66	1,677.5	+ 26.00	+ 73.8	91.3	
LUBE OIL STORAGE DSL GEN P	10 %	0.42	47.93	20.1	590.66	248.1	+ 1.33	+ 0.6	0.3	
LUBE OIL GRAVITY S	10 %	1.48	48.00	71.0	590.66	874.2	- 4.00	- 5.9	8.0	
LUBE OIL SETTLING P	10 %	2.02	48.34	97.7	590.47	1,192.8	- 9.83	- 19.9	46.1	
MAIN LUBE OIL SUMP	10 %	9.80	9.17	87.1	618.53	5,836.0	0	0	61.3	
TOTAL LUBE OIL	10 %	16.56	25.34	412.0	606.92	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16					
BILGE SLOP		0			572.29		- 33.18			
TOTAL SANITARY WASTE		0					0			

LOADING FORM

CONDITION: 6. 50% CARGO ARRIVAL, LGTRS @ 239.29, LGTRS 2 HIGH MN DK — BY: — DATE: — 107

HOLD	NUMBER OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	239.29	43.00	10,289.5	172.67	41,318.2	0	0	
LIGHTER HOLD 1A-4	1	239.29	57.17	13,680.2	172.67	41,318.2	0	0	
LIGHTER HATCH 1A-5	1	239.29	74.50	17,827.1	172.67	41,318.2	0	0	
LIGHTER HATCH 1A-6	1	239.29	88.67	21,217.8	172.67	41,318.2	0	0	
LIGHTER HOLD 1B-2	1	239.29	28.50	6,819.8	209.33	50,090.6	0	0	
LIGHTER HOLD 1B-3	1	239.29	42.67	10,210.5	209.33	50,090.6	0	0	
LIGHTER HOLD 1B-4	1	239.29	56.83	13,598.9	209.33	50,090.6	0	0	
LIGHTER HATCH 1B-5	1	239.29	74.50	17,827.1	209.33	50,090.6	0	0	
LIGHTER HATCH 1B-6	1	239.29	88.67	21,217.8	209.33	50,090.6	0	0	
LIGHTER HOLD 1C-1	1	239.29	14.50	3,469.7	246.00	58,865.3	0	0	
LIGHTER HOLD 1C-2	1	239.29	28.67	6,860.4	246.00	58,865.3	0	0	
LIGHTER HOLD 1C-3	1	239.29	42.83	10,248.8	246.00	58,865.3	0	0	
LIGHTER HOLD 1C-4	1	239.29	57.00	13,639.5	246.00	58,865.3	0	0	
LIGHTER HATCH 1C-5	1	239.29	74.50	17,827.1	246.00	58,865.3	0	0	
LIGHTER HATCH 1C-6	1	239.29	88.67	21,217.8	246.00	58,865.3	0	0	
TOTAL LIGHTER HOLD 1	15	3,589.35	57.38	205,952.0	214.22	768,917.6	0	0	

LOADING FORM

CONDITION: 6. 50% CARGO ARRIVAL, LGTRS @ 239.29, LGTRS 2 HIGH MN DK — BY: — DATE: — 108

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	239.29	12.50	2,991.1	282.67	67,640.1	0	0	
LIGHTER HOLD 2A - 2	1	239.29	26.67	6,381.9	282.67	67,640.1	0	0	
LIGHTER HOLD 2A - 3	1	239.29	40.83	9,770.2	282.67	67,640.1	0	0	
LIGHTER HOLD 2A - 4	1	239.29	55.00	13,161.0	282.67	67,640.1	0	0	
LIGHTER HATCH 2A - 5	1	239.29	73.00	17,468.2	282.67	67,640.1	0	0	
LIGHTER HATCH 2A - 6	1	239.29	87.17	20,858.9	282.67	67,640.1	0	0	
LIGHTER HOLD 2B - 1	1	239.29	12.50	2,991.1	319.33	76,412.5	0	0	
LIGHTER HOLD 2B - 2	1	239.29	26.67	6,381.9	319.33	76,412.5	0	0	
LIGHTER HOLD 2B - 3	1	239.29	40.83	9,770.2	319.33	76,412.5	0	0	
LIGHTER HOLD 2B - 4	1	239.29	55.00	13,161.0	319.33	76,412.5	0	0	
LIGHTER HATCH 2B - 5	1	239.29	73.00	17,468.2	319.33	76,412.5	0	0	
LIGHTER HATCH 2B - 6	1	239.29	87.17	20,858.9	319.33	76,412.5	0	0	
LIGHTER HOLD 2C - 1	1	239.29	12.50	2,991.1	356.00	85,187.2	0	0	
LIGHTER HOLD 2C - 2	1	239.29	26.67	6,381.9	356.00	85,187.2	0	0	
LIGHTER HOLD 2C - 3	1	239.29	40.83	9,770.2	356.00	85,187.2	0	0	
LIGHTER HOLD 2C - 4	1	239.29	55.00	13,161.0	356.00	85,187.2	0	0	
LIGHTER HATCH 2C - 5	1	239.29	73.00	17,468.2	356.00	85,187.2	0	0	
LIGHTER HATCH 2C - 6	1	239.29	87.17	20,858.9	356.00	85,187.2	0	0	
LIGHTER HOLD 3A - 1	1	239.29	12.50	2,991.1	392.67	93,962.0	0	0	
LIGHTER HOLD 3A - 2	1	239.29	26.67	6,381.9	392.67	93,962.0	0	0	
LIGHTER HOLD 3A - 3	1	239.29	40.83	9,770.2	392.67	93,962.0	0	0	
LIGHTER HOLD 3A - 4	1	239.29	55.00	13,161.0	392.67	93,962.0	0	0	
LIGHTER HATCH 3A - 5	1	239.29	73.00	17,468.2	392.67	93,962.0	0	0	
LIGHTER HATCH 3A - 6	1	239.29	87.17	20,858.9	392.67	93,962.0	0	0	
LIGHTER HOLD 3B - 1	1	239.29	12.50	2,991.1	429.34	102,736.8	0	0	
LIGHTER HOLD 3B - 2	1	239.29	26.67	6,381.9	429.34	102,736.8	0	0	
LIGHTER HOLD 3B - 3	1	239.29	40.83	9,770.2	429.34	102,736.8	0	0	
LIGHTER HOLD 3B - 4	1	239.29	55.00	13,161.0	429.34	102,736.8	0	0	
LIGHTER HATCH 3B - 5	1	239.29	73.00	17,468.2	429.34	102,736.8	0	0	
LIGHTER HATCH 3B - 6	1	239.29	87.17	20,858.9	429.34	102,736.8	0	0	
TOTAL LIGHTERS HOLD 2 & 3	30	7,178.70	49.20	353,166.5	356.00	2,555,691.6	0	0	

LOADING FORM

CONDITION: 6. 50% CARGO ARRIVAL, LGTRS @ 239.29, LGTRS 2 HIGH MN DK — BY: — DATE: — 109

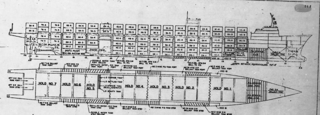
HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	239.29	12.50	2,991.1	466.01	111,511.5	0	0	
LIGHTER	HOLD	4A-2	1	239.29	26.67	6,381.9	466.01	111,511.5	0	0	
LIGHTER	HOLD	4A-3	1	239.29	40.83	9,770.2	466.01	111,511.5	0	0	
LIGHTER	HOLD	4A-4	1	239.29	55.00	13,161.0	466.01	111,511.5	0	0	
LIGHTER	HATCH	4A-5	1	239.29	73.00	17,468.2	466.01	111,511.5	0	0	
LIGHTER	HATCH	4A-6	1	239.29	87.17	20,858.9	466.01	111,511.5	0	0	
LIGHTER	HOLD	4B-1	1	239.29	12.50	2,991.1	502.67	120,283.9	0	0	
LIGHTER	HOLD	4B-2	1	239.29	26.67	6,381.9	502.67	120,283.9	0	0	
LIGHTER	HOLD	4B-3	1	239.29	40.83	9,770.2	502.67	120,283.9	0	0	
LIGHTER	HOLD	4B-4	1	239.29	55.00	13,161.0	502.67	120,283.9	0	0	
LIGHTER	HATCH	4B-5	1	239.29	73.00	17,468.2	502.67	120,283.9	0	0	
LIGHTER	HATCH	4B-6	1	239.29	87.17	20,858.9	502.67	120,283.9	0	0	
LIGHTER	HOLD	4C-1	1	239.29	12.50	2,991.1	539.34	129,058.7	0	0	
LIGHTER	HOLD	4C-2	1	239.29	26.67	6,381.9	539.34	129,058.7	0	0	
LIGHTER	HOLD	4C-3	1	239.29	40.83	9,770.2	539.34	129,058.7	0	0	
LIGHTER	HOLD	4C-4	1	239.29	55.00	13,161.0	539.34	129,058.7	0	0	
LIGHTER	HATCH	4C-5	1	239.29	73.00	17,468.2	539.34	129,058.7	0	0	
LIGHTER	HATCH	4C-6	1	239.29	87.17	20,858.9	539.34	129,058.7	0	0	
LIGHTER	HATCH	ER-5	1	239.29	73.00	17,468.2	575.99	137,828.7	0	0	
LIGHTER	HATCH	ER-6	1	239.29	87.17	20,858.9	575.99	137,828.7	0	0	
LIGHTER	HOLD	5A-3	1	239.29	41.50	9,930.5	612.67	146,605.8	0	0	
LIGHTER	HOLD	5A-4	1	239.29	55.67	13,321.3	612.67	146,605.8	0	0	
LIGHTER	HATCH	5A-5	1	239.29	73.00	17,468.2	612.67	146,605.8	0	0	
LIGHTER	HATCH	5A-6	1	239.29	87.17	20,858.9	612.67	146,605.8	0	0	
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			24	5,742.96	54.29	311,799.9	527.12	3,027,208.2	0	0	

LOADING FORM

CONDITION: 6. 50% CARGO ARRIVAL, LGTRS @ 239.29, LGTRS 2 HIGH MN DK — BY: — DATE: — 110

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	239.29	27.00	6,460.8	649.34	155,380.6	0	0	
LIGHTER	HOLD	6A-3	1	239.29	41.17	9,851.6	649.34	155,380.6	0	0	
LIGHTER	HOLD	6A-4	1	239.29	55.33	13,239.9	649.34	155,380.6	0	0	
LIGHTER	HATCH	6A-5	1	239.29	73.00	17,468.2	649.34	155,380.6	0	0	
LIGHTER	HATCH	6A-6	1	239.29	87.17	20,858.9	649.34	155,380.6	0	0	
LIGHTER	HOLD	6B-2	1	239.29	27.00	6,460.8	686.01	164,155.3	0	0	
LIGHTER	HOLD	6B-3	1	239.29	41.17	9,851.6	686.01	164,155.3	0	0	
LIGHTER	HOLD	6B-4	1	239.29	55.33	13,239.9	686.01	164,155.3	0	0	
LIGHTER	HATCH	6B-5	1	239.29	73.00	17,468.2	686.01	164,155.3	0	0	
LIGHTER	HATCH	6B-6	1	239.29	87.17	20,858.9	686.01	164,155.3	0	0	
LIGHTER	HOLD	7A-3	1	239.29	41.50	9,930.5	722.67	172,927.7	0	0	
LIGHTER	HOLD	7A-4	1	239.29	55.67	13,321.3	722.67	172,927.7	0	0	
LIGHTER	HATCH	7A-5	1	239.29	73.00	17,468.2	722.67	172,927.7	0	0	
LIGHTER	HATCH	7A-6	1	239.29	87.17	20,858.9	722.67	172,927.7	0	0	
LIGHTER	HOLD	7B-3	1	239.29	41.50	9,930.5	759.34	181,702.5	0	0	
LIGHTER	HOLD	7B-4	1	239.29	55.67	13,321.3	759.34	181,702.5	0	0	
LIGHTER	HATCH	7B-5	1	239.29	73.00	17,468.2	759.34	181,702.5	0	0	
LIGHTER	HATCH	7B-6	1	239.29	87.17	20,858.9	759.34	181,702.5	0	0	
LIGHTER	HATCH	SG-5	1	239.29	68.17	16,312.4	795.99	190,472.5	0	0	
LIGHTER	HATCH	SG-6	1	239.29	82.33	19,700.8	795.99	190,472.5	0	0	
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			20	4,785.80	61.63	294,929.8	709.84	3,397,145.3	0	0	

111



CONDITION NO. 7

7. 0% CARGO DEPART
LGTRS @ 80.0
LGTRS 2 HIGH MN DK

DRY CARGO 7120.00 LT

FLUME TANKS	65%	1090.04 LT
LUBE OIL	98%	77.16 LT
DIESEL OIL	98%	113.52 LT
FUEL OIL	98%	7291.48 LT
FRESH WATER	100%	788.72 LT
S.W. BALLAST		2375.56 LT
CREW & STORES		125.00 LT
DEADWEIGHT		18,931.98 LT
DISPLACEMENT		35,450.25 LT
LIGHTSHIP		16,518.27 LT

LCB TO FP	408.78 FT
LCF TO FP	441.06 FT
LCG TO FP	430.33 FT
TRIM	10.31 FT AFT
MOMENT TO TRIM 1"	6,172.3 FT. TONS
TONS PER INCH IMM.	144.2
DRAFT LCF	26.51 FT
DRAFT FWD	20.88 FT
DRAFT ⊗	25.96 FT
DRAFT AFT	30.00 FT

STABILITY	
KM	48.87 FT
KG	37.20 FT
GM	11.07 FT
FREE SURF. CORRECTION	1.68 FT
GM AVAILABLE	9.39 FT
GM REQUIRED	5.18 FT
LIGHTERS	20 @ 80.0

LOADING FORM SUMMARY

CONDITION: 7. 0% CARGO DEPART, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — BY: — DATE: — 112

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,201	432.68	7,147,078	- 0.11	- 1,768.7	—	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	—	
CONSUMABLES & STORES		100.00	56.00	5,600.0	95.00	9,500.0	- 0.02	- 2.0	—	
SW BALLAST		2,375.56	3.56	8,452.8	358.91	852,644.0	0	0	—	
FRESH WATER	100%	788.72	39.69	31,303.6	612.28	482,912.6	0	0	0	
FLUMES	65%	1,090.04	19.25	20,979.0	195.11	212,678.3	0	0	743.2	
FUEL OIL	98%	7,291.48	28.88	209,149.4	438.95	3,178,886.0	- 0.06	- 399.6	41,747.0	
DIESEL OIL	98%	113.52	16.45	1,867.9	564.94	64,131.8	+ 0.54	+ 61.0	16,747.2	
LUBE OIL	98%	77.16	46.87	3,616.4	594.04	45,836.3	+ 6.31	+ 486.9	150.5	
SANITARY WASTE		0							207.0	
LIGHTERS HOLD 1	15	1,200.00	57.38	68,854.4	214.22	257,064.9	0	0	—	
LIGHTERS HOLDS 2 & 3	30	2,400.00	49.20	118,068.0	356.00	854,404.8	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	24	1,920.00	54.29	104,241.6	527.12	1,012,062.9	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	20	1,600.00	61.63	98,601.6	709.84	1,135,741.6	0	0	—	
TOTAL DISPLACEMENT		35,450.25	37.11	1,315,701.1	430.33	15,255,320.2	- 0.05	- 1,622.5	59,594.9	

DRAFT AT LCF	26.51 FT.
LCG AFT FP	430.33 FT.
LCB AFT FP	408.78 FT.
TRIM LEVER (+AFT/-FWD)	21.55 FT.
MT1"	6,172.3 FT-TONS
TRIM (+AFT/-FWD)	10.31 FT.
LCF AFT FP	441.06 FT
DRAFT @ FP	20.80 FT.
DRAFT @ AP	31.11 FT.
DRAFT @ FWD D.M.	20.88 FT.
DRAFT @ ⊗ D.M.	25.96 FT.
DRAFT @ AFT D.M.	30.00 FT.
TPI	144.2 TONS
KM_t	48.87 FT.
KG ABV. KEEL	37.20 FT.
GM	11.07 FT.
FS CORRN	1.68 FT.
GM AVAILABLE	9.39 FT.
GM REQUIRED	5.18 FT.
HEEL (+PORT/-STBD)	0.28 DEGREES

RED. 8X DATE 7-81
MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 15

LOADING FORM

CONDITION: 7. 0% CARGO DEPART, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — 113 — BY: — DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	698.13	3.56	2,487.1	321.63	222,604.8	+ 20.98	+ 14,580.9	0	
#2 DB SW BALLAST S	100 %	698.13	3.56	2,487.1	321.63	222,604.8	- 20.98	- 14,580.9	0	
#2 WING SW BALLAST P		0			302.30		+ 42.29			
#2 WING SW BALLAST S		0			302.30		- 42.29			
#2A WING SW BALLAST P		0			374.36		+ 42.89			
#2A WING SW BALLAST S		0			374.36		- 42.89			
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.2	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.2	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P		0			499.74		+ 20.74			
#4 DB SW BALLAST S		0			499.74		- 20.74			
#4 WING SW BALLAST P		0			520.73		+ 42.64			
#4 WING SW BALLAST S		0			520.73		- 42.64			
#7 SW BALLAST P		0			736.77		+ 22.48			
#7 SW BALLAST S		0			737.18		- 30.53			
AFT SW BALLAST P		0			793.22		+ 20.16			
AFT SW BALLAST S		0			793.22		- 20.16			
TOTAL SW BALLAST		2,375.56	3.86	8,453.2	358.91	852,644.0	0	0	0	
FRESH WATER TANKS										
DISTILLED WATER P	100 %	242.93	47.58	11,558.6	613.13	148,947.7	+ 43.77	+ 10,633.0	233.3	
DISTILLED WATER S	100 %	242.93	47.58	11,558.6	613.13	148,947.7	- 43.77	- 10,633.0	233.8	
POTABLE WATER P	100 %	151.43	27.03	4,093.2	610.91	92,510.1	+ 40.10	+ 6,072.3	137.8	
POTABLE WATER S	100 %	151.43	27.03	4,093.2	610.91	92,510.1	- 40.10	- 6,072.3	137.8	
TOTAL FRESH WATER	100 %	788.72	39.69	31,303.6	612.28	482,915.6	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	64 %	441.83	28.29	12,441.2	173.31	76,572.6	0	0	20,804.0	
AFT FLUME	66 %	648.21	12.40	8,037.8	209.97	136,104.7	0	0	20,943.0	
TOTAL FLUMES	65 %	1090.04	19.25	20,479.0	195.11	212,678.3	0	0	41,747.0	

LOADING FORM

CONDITION: 7. 0% CARGO DEPART, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — 114 — BY: — DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	98%	994.24	20.79	20,670.3	127.80	127,063.9	+ 10.12	+ 10,061.7	2,388.8	
FUEL OIL STORAGE S	98%	994.24	20.79	20,670.3	127.80	127,063.9	- 10.12	- 10,061.7	2,388.8	
#3 WING FUEL OIL P	98%	1300.85	33.07	43,019.1	447.56	582,208.4	+ 42.81	+ 55,689.4	549.6	
#3 WING FUEL OIL S	98%	1300.85	33.07	43,019.1	447.56	582,208.4	- 42.81	- 55,689.4	549.6	
#6 WING FUEL OIL P	98%	1296.37	31.23	40,485.6	663.88	860,659.1	+ 34.53	+ 44,763.7	4,453.3	
#6 WING FUEL OIL S	98%	1355.43	30.47	41,300.0	663.78	899,707.3	- 33.32	- 45,162.9	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	98%	7241.98	28.88	209,164.4	438.95	3,178,886.0	- 0.06	- 399.8	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	98%	56.13	15.82	888.0	564.83	31,703.9	+ 40.57	+ 2277.2	75.2	
DIESEL OIL S	98%	56.13	15.82	888.0	564.83	31,703.9	- 40.57	- 2277.2	75.2	
400 GAL. DSL GEN DAY P	98%	1.26	72.93	91.9	574.56	724.0	+ 48.42	+ 61.0	0.1	
TOTAL DIESEL OIL	98%	113.52	16.45	1,867.9	564.94	64,131.8	+ 0.54	+ 61.0	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	98%	28.43	51.88	1475.0	590.66	16,792.5	+ 26.00	+ 739.2	91.3	
LUBE OIL STORAGE DSL GEN P	98%	4.22	51.87	218.9	590.66	2,492.6	+ 1.33	+ 5.6	0.3	
LUBE OIL GRAVITY S	98%	14.80	52.62	778.8	590.66	8,741.8	- 4.00	- 59.2	8.0	
LUBE OIL SETTLING P	98%	20.21	52.28	1056.6	590.47	11,933.4	- 9.83	- 198.7	46.1	
MAIN LUBE OIL SUMP	98%	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	98%	77.16	46.87	3616.4	594.04	45,836.3	+ 6.31	+ 486.9	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM

CONDITION: 7. 0% CARGO DEPART, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — 115 — BY: — DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD IA-3	1	80.0	43.00	3440.0	172.67	13,813.6	0	0	
LIGHTER HOLD IA-4	1	80.0	57.17	4573.6	172.67	13,813.6	0	0	
LIGHTER HATCH IA-5	1	80.0	74.50	5960.0	172.67	13,813.6	0	0	
LIGHTER HATCH IA-6	1	80.0	88.67	7093.6	172.67	13,813.6	0	0	
LIGHTER HOLD IB-2	1	80.0	28.50	2280.0	209.33	16,746.4	0	0	
LIGHTER HOLD IB-3	1	80.0	42.67	3413.6	209.33	16,746.4	0	0	
LIGHTER HOLD IB-4	1	80.0	56.83	4546.4	209.33	16,746.4	0	0	
LIGHTER HATCH IB-5	1	80.0	74.50	5960.0	209.33	16,746.4	0	0	
LIGHTER HATCH IB-6	1	80.0	88.67	7093.6	209.33	16,746.4	0	0	
LIGHTER HOLD IC-1	1	80.0	14.50	1160.0	246.00	19,680.0	0	0	
LIGHTER HOLD IC-2	1	80.0	28.67	2293.6	246.00	19,680.0	0	0	
LIGHTER HOLD IC-3	1	80.0	42.83	3426.4	246.00	19,680.0	0	0	
LIGHTER HOLD IC-4	1	80.0	57.00	4560.0	246.00	19,680.0	0	0	
LIGHTER HATCH IC-5	1	80.0	74.50	5960.0	246.00	19,680.0	0	0	
LIGHTER HATCH IC-6	1	80.0	88.67	7093.6	246.00	19,680.0	0	0	
TOTAL LIGHTER HOLD 1	15	1200.0	57.38	68,854.9	214.22	257,064.4	0	0	

LOADING FORM

CONDITION: 7. 0% CARGO DEPART, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — 116 — BY: — DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	80.0	12.50	1,000.0	282.67	22,613.6	0	0	
LIGHTER HOLD 2A - 2	1	80.0	26.67	2,133.6	282.67	22,613.6	0	0	
LIGHTER HOLD 2A - 3	1	80.0	40.83	3,266.4	282.67	22,613.6	0	0	
LIGHTER HOLD 2A - 4	1	80.0	55.00	4,400.0	282.67	22,613.6	0	0	
LIGHTER HATCH 2A - 5	1	80.0	73.00	5,840.0	282.67	22,613.6	0	0	
LIGHTER HATCH 2A - 6	1	80.0	87.17	6,973.6	282.67	22,613.6	0	0	
LIGHTER HOLD 2B - 1	1	80.0	12.50	1,000.0	319.33	25,546.4	0	0	
LIGHTER HOLD 2B - 2	1	80.0	26.67	2,133.6	319.33	25,546.4	0	0	
LIGHTER HOLD 2B - 3	1	80.0	40.83	3,266.4	319.33	25,546.4	0	0	
LIGHTER HOLD 2B - 4	1	80.0	55.00	4,400.0	319.33	25,546.4	0	0	
LIGHTER HATCH 2B - 5	1	80.0	73.00	5,840.0	319.33	25,546.4	0	0	
LIGHTER HATCH 2B - 6	1	80.0	87.17	6,973.6	319.33	25,546.4	0	0	
LIGHTER HOLD 2C - 1	1	80.0	12.50	1,000.0	356.00	28,480.0	0	0	
LIGHTER HOLD 2C - 2	1	80.0	26.67	2,133.6	356.00	28,480.0	0	0	
LIGHTER HOLD 2C - 3	1	80.0	40.83	3,266.4	356.00	28,480.0	0	0	
LIGHTER HOLD 2C - 4	1	80.0	55.00	4,400.0	356.00	28,480.0	0	0	
LIGHTER HATCH 2C - 5	1	80.0	73.00	5,840.0	356.00	28,480.0	0	0	
LIGHTER HATCH 2C - 6	1	80.0	87.17	6,973.6	356.00	28,480.0	0	0	
LIGHTER HOLD 3A - 1	1	80.0	12.50	1,000.0	392.67	31,413.6	0	0	
LIGHTER HOLD 3A - 2	1	80.0	26.67	2,133.6	392.67	31,413.6	0	0	
LIGHTER HOLD 3A - 3	1	80.0	40.83	3,266.4	392.67	31,413.6	0	0	
LIGHTER HOLD 3A - 4	1	80.0	55.00	4,400.0	392.67	31,413.6	0	0	
LIGHTER HATCH 3A - 5	1	80.0	73.00	5,840.0	392.67	31,413.6	0	0	
LIGHTER HATCH 3A - 6	1	80.0	87.17	6,973.6	392.67	31,413.6	0	0	
LIGHTER HOLD 3B - 1	1	80.0	12.50	1,000.0	429.34	34,347.2	0	0	
LIGHTER HOLD 3B - 2	1	80.0	26.67	2,133.6	429.34	34,347.2	0	0	
LIGHTER HOLD 3B - 3	1	80.0	40.83	3,266.4	429.34	34,347.2	0	0	
LIGHTER HOLD 3B - 4	1	80.0	55.00	4,400.0	429.34	34,347.2	0	0	
LIGHTER HATCH 3B - 5	1	80.0	73.00	5,840.0	429.34	34,347.2	0	0	
LIGHTER HATCH 3B - 6	1	80.0	87.17	6,973.6	429.34	34,347.2	0	0	
TOTAL LIGHTERS HOLD 2 & 3	30	2400.0	49.20	118,068.0	356.00	854,404.8	0	0	

LOADING FORM

CONDITION: 7. 0% CARGO DEPART, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — 117 — BY: — DATE:

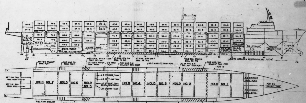
HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	80.0	12.50	1,000.0	466.01	37,280.8	0	0	
LIGHTER	HOLD	4A-2	1	80.0	26.67	2,133.6	466.01	37,280.8	0	0	
LIGHTER	HOLD	4A-3	1	80.0	40.83	3,266.4	466.01	37,280.8	0	0	
LIGHTER	HOLD	4A-4	1	80.0	55.00	4,400.0	466.01	37,280.8	0	0	
LIGHTER	HATCH	4A-5	1	80.0	73.00	5,840.0	466.01	37,280.8	0	0	
LIGHTER	HATCH	4A-6	1	80.0	87.17	6,973.6	466.01	37,280.8	0	0	
LIGHTER	HOLD	4B-1	1	80.0	12.50	1,000.0	502.67	40,213.6	0	0	
LIGHTER	HOLD	4B-2	1	80.0	26.67	2,133.6	502.67	40,213.6	0	0	
LIGHTER	HOLD	4B-3	1	80.0	40.83	3,266.4	502.67	40,213.6	0	0	
LIGHTER	HOLD	4B-4	1	80.0	55.00	4,400.0	502.67	40,213.6	0	0	
LIGHTER	HATCH	4B-5	1	80.0	73.00	5,840.0	502.67	40,213.6	0	0	
LIGHTER	HATCH	4B-6	1	80.0	87.17	6,973.6	502.67	40,213.6	0	0	
LIGHTER	HOLD	4C-1	1	80.0	12.50	1,000.0	539.34	43,147.2	0	0	
LIGHTER	HOLD	4C-2	1	80.0	26.67	2,133.6	539.34	43,147.2	0	0	
LIGHTER	HOLD	4C-3	1	80.0	40.83	3,266.4	539.34	43,147.2	0	0	
LIGHTER	HOLD	4C-4	1	80.0	55.00	4,400.0	539.34	43,147.2	0	0	
LIGHTER	HATCH	4C-5	1	80.0	73.00	5,840.0	539.34	43,147.2	0	0	
LIGHTER	HATCH	4C-6	1	80.0	87.17	6,973.6	539.34	43,147.2	0	0	
LIGHTER	HATCH	ER-5	1	80.0	73.00	5,840.0	575.99	46,079.2	0	0	
LIGHTER	HATCH	ER-6	1	80.0	87.17	6,973.6	575.99	46,079.2	0	0	
LIGHTER	HOLD	5A-3	1	80.0	41.50	3,320.0	612.67	49,013.6	0	0	
LIGHTER	HOLD	5A-4	1	80.0	55.67	4,453.6	612.67	49,013.6	0	0	
LIGHTER	HATCH	5A-5	1	80.0	73.00	5,840.0	612.67	49,013.6	0	0	
LIGHTER	HATCH	5A-6	1	80.0	87.17	6,973.6	612.67	49,013.6	0	0	
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			24	1920.0	54.29	104,241.6	527.12	1,012,062.4	0	0	

LOADING FORM

CONDITION: 7 0% CARGO DEPART, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — 118 — BY: — DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	80.0	27.00	2,160.0	649.34	51,947.2	0	0	
LIGHTER	HOLD	6A-3	1	80.0	41.17	3,293.6	649.34	51,947.2	0	0	
LIGHTER	HOLD	6A-4	1	80.0	55.33	4,426.4	649.34	51,947.2	0	0	
LIGHTER	HATCH	6A-5	1	80.0	73.00	5,840.0	649.34	51,947.2	0	0	
LIGHTER	HATCH	6A-6	1	80.0	87.17	6,973.6	649.34	51,947.2	0	0	
LIGHTER	HOLD	6B-2	1	80.0	27.00	2,160.0	686.01	54,880.8	0	0	
LIGHTER	HOLD	6B-3	1	80.0	41.17	3,293.6	686.01	54,880.8	0	0	
LIGHTER	HOLD	6B-4	1	80.0	55.33	4,426.4	686.01	54,880.8	0	0	
LIGHTER	HATCH	6B-5	1	80.0	73.00	5,840.4	686.01	54,880.8	0	0	
LIGHTER	HATCH	6B-6	1	80.0	87.17	6,973.6	686.01	54,880.8	0	0	
LIGHTER	HOLD	7A-3	1	80.0	41.50	3,320.0	722.67	57,813.6	0	0	
LIGHTER	HOLD	7A-4	1	80.0	55.67	4,453.6	722.67	57,813.6	0	0	
LIGHTER	HATCH	7A-5	1	80.0	73.00	5,840.0	722.67	57,813.6	0	0	
LIGHTER	HATCH	7A-6	1	80.0	87.17	6,973.6	722.67	57,813.6	0	0	
LIGHTER	HOLD	7B-3	1	80.0	41.50	3,320.0	759.34	60,747.2	0	0	
LIGHTER	HOLD	7B-4	1	80.0	55.67	4,453.6	759.34	60,747.2	0	0	
LIGHTER	HATCH	7B-5	1	80.0	73.00	5,840.0	759.34	60,747.2	0	0	
LIGHTER	HATCH	7B-6	1	80.0	87.17	6,973.6	759.34	60,747.2	0	0	
LIGHTER	HATCH	SG-5	1	80.0	68.17	5,453.6	795.99	63,679.2	0	0	
LIGHTER	HATCH	SG-6	1	80.0	82.33	6,586.4	795.99	63,679.2	0	0	
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			20	1,600.0	61.63	98,601.6	709.84	1,135,741.6	0	0	

119



CONDITION NO. 8	
8. 0% CARGO ARRIVAL	
LGTRS @ 80.0	
LGTRS 2 HIGH MN DK	
DRY CARGO	7,120.00 LT

FLUME TANKS	65%	1090.04 LT
LUBE OIL	10%	16.26 LT
DIESEL OIL	10%	11.35 LT
FUEL OIL	10%	724.20 LT
FRESH WATER	10%	78.86 LT
S.W. BALLAST		6407.62 LT
CREW & STORES		60.00 LT
DEADWEIGHT		15,508.33 LT
DISPLACEMENT		32,026.60 LT
LIGHTSHIP		16,518.27 LT

LCB TO FP	405.66	FT
LCF TO FP	434.70	FT
LCG TO FP	416.72	FT
TRIM	5.82	FT AFT
MOMENT TO TRIM 1"	5657.7	FT. TONS
TONS PER INCH IMM.	136.1	
DRAFT LCF	24.53	FT
DRAFT FWD	21.73	FT
DRAFT ⊗	24.30	FT
DRAFT AFT	26.85	FT

STABILITY		
KM	49.33	FT
KG	36.68	FT
GM	12.65	FT
FREE SURF. CORRECTION	1.86	FT
GM AVAILABLE	10.79	FT
GM REQUIRED	6.90	FT
LIGHTERS	89 @ 80.0	

LOADING KEY: DRY CARGO — FUEL OIL — S.W. BALLAST — FRESH WATER — EMPTY

LOADING FORM SUMMARY

CONDITION: 8. 0% CARGO ARRIVAL, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — 120 — BY: — DATE:

ITEM		WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP		16,518.27	38.94	643,801	432.68	7,147,078	- 0.11	- 1,768.7	—	
CREW & EFFECTS		25.00	70.00	1,750.0	95.00	2,375.0	- 0.02	- 0.5	—	
CONSUMABLES & STORES		35.00	56.00	1,960.0	95.00	3,325.0	- 0.02	- 0.5	—	
SW BALLAST		6,407.62	16.33	104,698.9	365.00	2,338,786.6	0	0	0	
FRESH WATER	10%	78.86	31.82	2,509.0	612.28	48,284.2	0	0	743.2	
FLUMES	65%	1,090.04	19.25	20,979.0	195.11	212,678.3	0	0	41,747.0	
FUEL OIL	10%	724.20	8.85	6,411.2	438.96	317,898.1	- 0.05	- 39.7	16,747.2	
DIESEL OIL	10%	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL	10%	16.26	25.34	412.0	606.92	9,868.6	+ 2.99	+ 48.6	207.0	
SANITARY WASTE		0								
LIGHTERS HOLD 1	15	1,200.00	57.38	68,854.9	214.22	257,066.4	0	0	—	
LIGHTERS HOLDS 2 & 3	30	2,400.00	49.20	118,068.0	356.00	854,404.8	0	0	—	
LIGHTERS HOLDS 4, ENG. RM., & 5	24	1,920.00	54.29	104,241.6	527.12	1,012,062.4	0	0	—	
LIGHTERS HOLDS 6,7, & STG. GR.	20	1,600.00	61.63	98,601.6	709.84	1,135,741.6	0	0	—	
TOTAL DISPLACEMENT		32,026.60	36.59	1,171,738.2	416.72	13,345,975.1	- 0.06	- 1,754.5	59,594.9	

DRAFT AT LCF	24.53	FT.
LCG AFT FP	416.72	FT.
LCB AFT FP	405.66	FT.
TRIM LEVER (+AFT/-FWD)	11.06	FT.
MT1"	5657.7	FT-TONS
TRIM (+AFT/-FWD)	5.82	FT.
LCF AFT FP	434.70	FT
DRAFT @ FP	21.69	FT.
DRAFT @ AP	26.91	FT.
DRAFT @ FWD D.M.	21.73	FT.
DRAFT @ ⊗ D.M.	24.30	FT.
DRAFT @ AFT D.M.	26.85	FT.
TPI	136.1	TONS
KM_t	49.33	FT.
KG ABV. KEEL	36.68	FT.
GM	12.65	FT.
FS CORRN	1.86	FT.
GM AVAILABLE	10.79	FT.
GM REQUIRED	6.90	FT.
HEEL (+PORT/-STBD)	0.29	DEGREES

RED. 8X DATE 7-81
MA. NO. H-204 BLDR. NO. 29-01-09
FRAME NO. 16

LOADING FORM — 121

CONDITION: 8. 0% CARGO ARRIVAL, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — BY: — DATE:

TANK	SOUNDING	WEIGHT L. TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.- TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.TONS	REMARKS
BALLAST TANKS										
FOREPEAK SW BALLAST		0			21.18		- 0.02			
FWD SW BALLAST		0			70.79		0			
#1 SW BALLAST		0			173.54		0			
#2 DB SW BALLAST P	100 %	692.13	3.55	2,457.1	321.63	222,609.8	+ 20.98	+ 14,520.9	0	
#2 DB SW BALLAST S	100 %	692.13	3.55	2,457.1	321.63	222,609.8	- 20.98	- 14,520.9	0	
#2 WING SW BALLAST P	100 %	1,339.24	34.11	45,681.5	302.30	404,852.3	+ 42.29	+ 56,636.5	0	
#2 WING SW BALLAST S	100 %	1,339.24	34.11	45,681.5	302.30	404,852.3	- 42.29	- 56,636.5	0	
#2A WING SW BALLAST P		0			374.36		+ 42.89			
#2A WING SW BALLAST S		0			374.36		- 42.89			
#3 DB SW BALLAST P	100 %	495.65	3.57	1,769.5	411.00	203,712.2	+ 22.07	+ 10,939.0	0	
#3 DB SW BALLAST S	100 %	495.65	3.57	1,769.5	411.00	203,712.2	- 22.07	- 10,939.0	0	
#4 DB SW BALLAST P	100 %	676.79	3.57	2,416.1	499.74	338,219.0	+ 20.74	+ 14,036.6	0	
#4 DB SW BALLAST S	100 %	676.79	3.57	2,416.1	499.74	338,219.0	- 20.74	- 14,036.6	0	
#4 WING SW BALLAST P		0			520.73		+ 42.64			
#4 WING SW BALLAST S		0			520.73		- 42.64			
#7 SW BALLAST P		0			736.77		+ 22.48			
#7 SW BALLAST S		0			737.18		- 30.53			
AFT SW BALLAST P		0			793.22		+ 20.16			
AFT SW BALLAST S		0			793.22		- 20.16			
TOTAL SW BALLAST		6,407.62	16.33	104,648.4	365.00	2,338,786.6	0	0	0	
FRESH WATER TANKS										
DISTILLED WATER P	10 %	24.29	39.02	947.8	613.13	14,892.4	+ 43.77	+ 1,063.2	233.8	
DISTILLED WATER S	10 %	24.29	39.02	947.8	613.13	14,892.4	- 43.77	- 1,063.2	233.8	
POTABLE WATER P	10 %	15.14	20.26	306.7	610.91	9,249.2	+ 40.10	+ 607.1	137.8	
POTABLE WATER S	10 %	15.14	20.26	306.7	610.91	9,249.2	- 40.10	- 607.1	137.8	
TOTAL FRESH WATER	10 %	78.86	31.82	2,509.0	612.28	48,284.2	0	0	743.2	
PASSIVE STABILIZER TANKS										
FWD FLUME	64 %	441.83	29.29	12,941.6	173.31	76,573.6	0	0	20,804.0	
AFT FLUME	66 %	648.21	12.40	8,037.8	209.97	136,104.7	0	0	20,943.0	
TOTAL FLUMES	65 %	1090.04	19.25	20,979.0	195.11	212,678.3	0	0	41,747.0	

LOADING FORM — 122

CONDITION: 8. 0% CARGO ARRIVAL, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — BY: — DATE:

TANK	SOUNDING	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	FREE SURFACE FT.-TONS	REMARKS
FUEL OIL TANKS										
FUEL OIL STORAGE P	10 %	99.42	3.64	361.9	127.80	12,705.9	+ 10.12	+ 1,006.1	2,358.8	
FUEL OIL STORAGE S	10 %	99.42	3.64	361.9	127.80	12,705.9	- 10.12	- 1,006.1	2,358.8	
#3 WING FUEL OIL P	10 %	130.09	11.25	1,463.5	447.56	58,223.1	+ 42.81	+ 5,569.3	549.6	
#3 WING FUEL OIL S	10 %	130.09	11.25	1,463.5	447.56	58,223.1	- 42.81	- 5,569.3	549.6	
#6 WING FUEL OIL P	10 %	129.64	10.66	1,382.0	663.88	86,065.4	+ 34.53	+ 4,476.5	4,453.3	
#6 WING FUEL OIL S	10 %	135.54	10.17	1,378.4	663.78	89,968.7	- 33.32	- 4,516.2	6,477.1	
FO STORAGE OVERFLOW P		0			99.41		+ 16.79			
FO STORAGE OVERFLOW S		0			99.41		- 16.79			
#3 WING FO OVERFLOW P		0			414.67		+ 45.04			
#3 WING FO OVERFLOW S		0			414.67		- 45.04			
#6 WING FO OVERFLOW P		0			634.67		+ 45.01			
#6 WING FO OVERFLOW S		0			634.67		- 45.01			
TOTAL FUEL OIL	10 %	724.20	8.85	6,411.2	438.96	317,892.1	- 0.05	- 39.7	16,747.2	
DIESEL OIL TANKS										
DIESEL OIL P	10 %	5.61	8.01	44.9	564.83	3,168.7	+ 40.57	+ 227.6	75.2	
DIESEL OIL S	10 %	5.61	8.01	44.9	564.83	3,168.7	- 40.57	- 227.6	75.2	
400 GAL. DSL GEN DAY P	10 %	0.13	70.81	9.2	574.56	74.7	+ 48.42	+ 6.3	0.1	
TOTAL DIESEL OIL	10 %	11.35	8.72	99.0	564.94	6,412.1	+ 0.56	+ 6.3	150.5	
LUBE OIL TANKS										
LUBE OIL STORAGE P	10 %	2.84	47.93	136.1	590.66	1,677.5	+ 26.00	+ 73.8	91.3	
LUBE OIL STORAGE DSL GEN P	10 %	0.42	47.93	20.1	590.66	248.1	+ 1.33	+ 0.6	0.3	
LUBE OIL GRAVITY S	10 %	1.48	48.00	71.0	590.66	874.2	- 4.00	- 5.9	8.0	
LUBE OIL SETTLING P	10 %	2.02	48.34	97.7	590.47	1,192.8	- 9.83	- 19.9	46.1	
MAIN LUBE OIL SUMP	10 %	9.50	9.17	87.1	618.53	5,876.0	0	0	61.3	
TOTAL LUBE OIL	10 %	16.26	25.34	412.0	606.92	9,868.6	+ 3.99	+ 48.6	207.0	
SANITARY WASTE TANKS										
500 GAL. SEWAGE		0			591.16		- 33.18			
BILGE SLOP		0			572.29		0			
TOTAL SANITARY WASTE		0								

LOADING FORM — 123

CONDITION: 8. 0% CARGO ARRIVAL, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — BY: — DATE:

HOLD	NUMBER OF LIGHTERS	WEIGHT WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	REMARKS
LIGHTER HOLD 1A-3	1	80.0	43.00	3440.0	172.67	13,813.6	0	0	
LIGHTER HOLD 1A-4	1	80.0	57.17	4573.6	172.67	13,813.6	0	0	
LIGHTER HATCH 1A-5	1	80.0	74.50	5960.0	172.67	13,813.6	0	0	
LIGHTER HATCH 1A-6	1	80.0	88.67	7093.6	172.67	13,813.6	0	0	
LIGHTER HOLD 1B-2	1	80.0	28.50	2280.0	209.33	16,746.4	0	0	
LIGHTER HOLD 1B-3	1	80.0	42.67	3413.6	209.33	16,746.4	0	0	
LIGHTER HOLD 1B-4	1	80.0	56.83	4546.4	209.33	16,746.4	0	0	
LIGHTER HATCH 1B-5	1	80.0	74.50	5960.0	209.33	16,746.4	0	0	
LIGHTER HATCH 1B-6	1	80.0	88.67	7093.6	209.33	16,746.4	0	0	
LIGHTER HOLD 1C-1	1	80.0	14.50	1160.0	246.00	19,680.0	0	0	
LIGHTER HOLD 1C-2	1	80.0	28.67	2293.6	246.00	19,680.0	0	0	
LIGHTER HOLD 1C-3	1	80.0	42.83	3426.4	246.00	19,680.0	0	0	
LIGHTER HOLD 1C-4	1	80.0	57.00	4560.0	246.00	19,680.0	0	0	
LIGHTER HATCH 1C-5	1	80.0	74.50	5960.0	246.00	19,680.0	0	0	
LIGHTER HATCH 1C-6	1	80.0	88.67	7093.6	246.00	19,680.0	0	0	
TOTAL LIGHTER HOLD 1	15	1200.0	57.38	68,854.4	214.22	257,066.4	0	0	

LOADING FORM — 124

CONDITION: 8. 0% CARGO ARRIVAL, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — BY: — DATE:

HOLD	NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT - TONS	REMARKS
LIGHTER HOLD 2A - 1	1	80.0	12.50	1,000.0	282.67	22,613.6	0	0	
LIGHTER HOLD 2A - 2	1	80.0	26.67	2,133.6	282.67	22,613.6	0	0	
LIGHTER HOLD 2A - 3	1	80.0	40.83	3,266.4	282.67	22,613.6	0	0	
LIGHTER HOLD 2A - 4	1	80.0	55.00	4,400.0	282.67	22,613.6	0	0	
LIGHTER HATCH 2A - 5	1	80.0	73.00	5,840.0	282.67	22,613.6	0	0	
LIGHTER HATCH 2A - 6	1	80.0	87.17	6,973.6	282.67	22,613.6	0	0	
LIGHTER HOLD 2B - 1	1	80.0	12.50	1,000.0	319.33	25,546.4	0	0	
LIGHTER HOLD 2B - 2	1	80.0	26.67	2,133.6	319.33	25,546.4	0	0	
LIGHTER HOLD 2B - 3	1	80.0	40.83	3,266.4	319.33	25,546.4	0	0	
LIGHTER HOLD 2B - 4	1	80.0	55.00	4,400.0	319.33	25,546.4	0	0	
LIGHTER HATCH 2B - 5	1	80.0	73.00	5,840.0	319.33	25,546.4	0	0	
LIGHTER HATCH 2B - 6	1	80.0	87.17	6,973.6	319.33	25,546.4	0	0	
LIGHTER HOLD 2C - 1	1	80.0	12.50	1,000.0	356.00	28,480.0	0	0	
LIGHTER HOLD 2C - 2	1	80.0	26.67	2,133.6	356.00	28,480.0	0	0	
LIGHTER HOLD 2C - 3	1	80.0	40.83	3,266.4	356.00	28,480.0	0	0	
LIGHTER HOLD 2C - 4	1	80.0	55.00	4,400.0	356.00	28,480.0	0	0	
LIGHTER HATCH 2C - 5	1	80.0	73.00	5,840.0	356.00	28,480.0	0	0	
LIGHTER HATCH 2C - 6	1	80.0	87.17	6,973.6	356.00	28,480.0	0	0	
LIGHTER HOLD 3A - 1	1	80.0	12.50	1,000.0	392.67	31,413.6	0	0	
LIGHTER HOLD 3A - 2	1	80.0	26.67	2,133.6	392.67	31,413.6	0	0	
LIGHTER HOLD 3A - 3	1	80.0	40.83	3,266.4	392.67	31,413.6	0	0	
LIGHTER HOLD 3A - 4	1	80.0	55.00	4,400.0	392.67	31,413.6	0	0	
LIGHTER HATCH 3A - 5	1	80.0	73.00	5,840.0	392.67	31,413.6	0	0	
LIGHTER HATCH 3A - 6	1	80.0	87.17	6,973.6	392.67	31,413.6	0	0	
LIGHTER HOLD 3B - 1	1	80.0	12.50	1,000.0	429.34	34,347.2	0	0	
LIGHTER HOLD 3B - 2	1	80.0	26.67	2,133.6	429.34	34,347.2	0	0	
LIGHTER HOLD 3B - 3	1	80.0	40.83	3,266.4	429.34	34,347.2	0	0	
LIGHTER HOLD 3B - 4	1	80.0	55.00	4,400.0	429.34	34,347.2	0	0	
LIGHTER HATCH 3B - 5	1	80.0	73.00	5,840.0	429.34	34,347.2	0	0	
LIGHTER HATCH 3B - 6	1	80.0	87.17	6,973.6	429.34	34,347.2	0	0	
TOTAL LIGHTERS HOLD 2 & 3	30	2,400.0	49.20	118,068.0	356.00	854,404.8	0	0	

LOADING FORM — 125

CONDITION: 8. 0% CARGO ARRIVAL, LGTRS @ 80.0, LGTRS 2 HIGH MN DK — BY: — DATE:

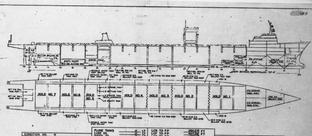
HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	4A-1	1	80.0	12.50	1,000.0	466.01	37,280.8	0	0	
LIGHTER	HOLD	4A-2	1	80.0	26.67	2,133.6	466.01	37,280.8	0	0	
LIGHTER	HOLD	4A-3	1	80.0	40.83	3,266.4	466.01	37,280.8	0	0	
LIGHTER	HOLD	4A-4	1	80.0	55.00	4,400.0	466.01	37,280.8	0	0	
LIGHTER	HATCH	4A-5	1	80.0	73.00	5,840.0	466.01	37,280.8	0	0	
LIGHTER	HATCH	4A-6	1	80.0	87.17	6,973.6	466.01	37,280.8	0	0	
LIGHTER	HOLD	4B-1	1	80.0	12.50	1,000.0	502.67	40,213.6	0	0	
LIGHTER	HOLD	4B-2	1	80.0	26.67	2,133.6	502.67	40,213.6	0	0	
LIGHTER	HOLD	4B-3	1	80.0	40.83	3,266.4	502.67	40,213.6	0	0	
LIGHTER	HOLD	4B-4	1	80.0	55.00	4,400.0	502.67	40,213.6	0	0	
LIGHTER	HATCH	4B-5	1	80.0	73.00	5,840.0	502.67	40,213.6	0	0	
LIGHTER	HATCH	4B-6	1	80.0	87.17	6,973.6	502.67	40,213.6	0	0	
LIGHTER	HOLD	4C-1	1	80.0	12.50	1,000.0	539.34	43,147.2	0	0	
LIGHTER	HOLD	4C-2	1	80.0	26.67	2,133.6	539.34	43,147.2	0	0	
LIGHTER	HOLD	4C-3	1	80.0	40.83	3,266.4	539.34	43,147.2	0	0	
LIGHTER	HOLD	4C-4	1	80.0	55.00	4,400.0	539.34	43,147.2	0	0	
LIGHTER	HATCH	4C-5	1	80.0	73.00	5,840.0	539.34	43,147.2	0	0	
LIGHTER	HATCH	4C-6	1	80.0	87.17	6,973.6	539.34	43,147.2	0	0	
LIGHTER	HATCH	ER-5	1	80.0	73.00	5,840.0	575.99	46,079.2	0	0	
LIGHTER	HATCH	ER-6	1	80.0	87.17	6,973.6	575.99	46,079.2	0	0	
LIGHTER	HOLD	5A-3	1	80.0	41.50	3,320.0	612.67	49,013.6	0	0	
LIGHTER	HOLD	5A-4	1	80.0	55.67	4,453.6	612.67	49,013.6	0	0	
LIGHTER	HATCH	5A-5	1	80.0	73.00	5,840.0	612.67	49,013.6	0	0	
LIGHTER	HATCH	5A-6	1	80.0	87.17	6,973.6	612.67	49,013.6	0	0	
TOTAL LIGHTERS HOLD 4, ENG. RM & 5			24	1920.0	54.29	104,241.6	527.12	1,012,062.4	0	0	

LOADING FORM — 126

CONDITION: 8. 0% CARGO ARRIVAL, LGTRS @ 80.0, LGTRS. 2 HIGH MN DK — BY: — DATE:

HOLD			NUMBERS OF LIGHTERS	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT.-TONS	LCG AFT FP FEET	LONG MOMENT FT.TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT.-TONS	REMARKS
LIGHTER	HOLD	6A-2	1	80.0	27.00	2,160.0	649.34	51,947.2	0	0	
LIGHTER	HOLD	6A-3	1	80.0	41.17	3,293.6	649.34	51,947.2	0	0	
LIGHTER	HOLD	6A-4	1	80.0	55.33	4,426.4	649.34	51,947.2	0	0	
LIGHTER	HATCH	6A-5	1	80.0	73.00	5,840.0	649.34	51,947.2	0	0	
LIGHTER	HATCH	6A-6	1	80.0	87.17	6,973.6	649.34	51,947.2	0	0	
LIGHTER	HOLD	6B-2	1	80.0	27.00	2,160.0	686.01	54,880.8	0	0	
LIGHTER	HOLD	6B-3	1	80.0	41.17	3,293.6	686.01	54,880.8	0	0	
LIGHTER	HOLD	6B-4	1	80.0	55.33	4,426.4	686.01	54,880.8	0	0	
LIGHTER	HATCH	6B-5	1	80.0	73.00	5,840.4	686.01	54,880.8	0	0	
LIGHTER	HATCH	6B-6	1	80.0	87.17	6,973.6	686.01	54,880.8	0	0	
LIGHTER	HOLD	7A-3	1	80.0	41.50	3,320.0	722.67	57,813.6	0	0	
LIGHTER	HOLD	7A-4	1	80.0	55.67	4,453.6	722.67	57,813.6	0	0	
LIGHTER	HATCH	7A-5	1	80.0	73.00	5,840.0	722.67	57,813.6	0	0	
LIGHTER	HATCH	7A-6	1	80.0	87.17	6,973.6	722.67	57,813.6	0	0	
LIGHTER	HOLD	7B-3	1	80.0	41.50	3,320.0	759.34	60,747.2	0	0	
LIGHTER	HOLD	7B-4	1	80.0	55.67	4,453.6	759.34	60,747.2	0	0	
LIGHTER	HATCH	7B-5	1	80.0	73.00	5,840.0	759.34	60,747.2	0	0	
LIGHTER	HATCH	7B-6	1	80.0	87.17	6,973.6	759.34	60,747.2	0	0	
LIGHTER	HATCH	SG-5	1	80.0	68.17	5,453.6	795.99	63,679.2	0	0	
LIGHTER	HATCH	SG-6	1	80.0	82.33	6,586.4	795.99	63,679.2	0	0	
TOTAL LIGHTERS HOLDS 6, 7, & STG GR			20	1,600.0	61.63	98,601.6	709.84	1,135,741.6	0	0	

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CONDITION NO. 9			
9. LIGHTSHIP			
DRY CARGO 0 LT			

FLUME TANKS	0 LT
LUBE OIL	0 LT
DIESEL OIL	0 LT
FUEL OIL	0 LT
FRESH WATER	0 LT
S.W. BALLAST	0 LT
CREW & STORES	0 LT
DEADWEIGHT	0 LT
DISPLACEMENT	0 LT
LIGHTSHIP	16,518.27 LT

LCB TO FP	390.54 FT
LCF TO FP	407.28 FT
LCG TO FP	432.68 FT
TRIM	14.74 FT AFT
MOMENT TO TRIM 1"	3944.7 FT. TONS
TONS PER INCH IMM.	119.4
DRAFT LCF	14.52 FT
DRAFT FWD	7.10 FT
DRAFT [illegible]	14.86 FT
DRAFT AFT	20.15 FT

STABILITY	
KM	61.78 FT
KG	39.03 FT
GM	22.76 FT
FREE SURF. CORRECTION	0 FT
GM AVAILABLE	22.76 FT
GM REQUIRED	18.9 FT
LIGHTERS	0

LOADING KEY: DRY CARGO — FUEL OIL — SW BALLAST — FRESH WATER — EMPTY

LOADING FORM SUMMARY — 128

CONDITION: 9. LIGHTSHIP — BY: — DATE:

ITEM	WEIGHT L.TONS	VCG ABOVE BL FEET	VERTICAL MOMENT FT-TONS	LCG AFT FP FEET	LONG MOMENT FT-TONS	TCG FROM CL FEET +PORT/-STBD	TRANSV MOMENT FT-TONS	FREE SURFACE FT-TONS	REMARKS
LIGHTSHIP INCLINING 5-23-80	16,795.00	39.78	668,105	428.70	7,200,093	- 0.17	- 2,863.1	—	
CONTAINER CRANE	- 245.94	95.27	- 23,430.7	191.78	- 47,166.4	- 4.45	+ 1,094.4	—	
CONTAINER GUIDES HOLD 1A	- 12.37	52.17	- 645.3	168.02	- 2,078.4	0	0	—	
CONTAINER GUIDES HOLD 1B	- 18.42	44.95	- 828.0	204.68	- 3,770.2	0	0	—	
TOTAL LIGHTSHIP *	16,518.27	38.94	643,201	432.68	7,147,078	- 0.11	- 1,768.7	—	

DRAFT AT LCF	14.52 FT.	LCF AFT FP	407.29 FT	KM_t	61.79 FT.
LCG AFT FP	432.68 FT.	DRAFT @ FP	6.99 FT.	KG ABV. KEEL	39.03 FT.
LCB AFT FP	390.49 FT.	DRAFT @ AP	21.73 FT.	GM	22.76 FT.
TRIM LEVER (+AFT/-FWD)	42.19 FT.	DRAFT @ FWD D.M.	7.10 FT.	FS CORRN	0 FT.
MT1"	3941.2 FT-TONS	DRAFT @ M D.M.	14.36 FT.	GM AVAILABLE	22.76 FT.
TRIM (+AFT/-FWD)	14.74 FT.	DRAFT @ AFT D.M.	20.15 FT.	GM REQUIRED	18.90 FT.
		TPI	119.4 TONS	HEEL (PORT/-STBD)	0.27 DEGREES

* LIGHTSHIP REFLECTS DATA OBTAINED FROM STABILITY TEST OF 5-23-80 REVISED TO SUIT REMOVAL OF CONTAINER CRANE AND REMOVAL OF CONTAINER GUIDES IN HOLDS 1A & 1B THAT INTERFERE WITH LIGHTER STOWAGE.

RED. 6X DATE 7-81
MA. NO. H-205 BLDR. NO. 29-01-10
FRAME NO. 1

ASI DWG NO 29-01-10 REV 2

RESERVATIONS

NO.	DESCRIPTION

A S I HULL NO	M A HULL NO	NAME OF VESSEL	M A DESIGN
2308	337	EDWARD RUTLEDGE	C9-S-81f
2307	336	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY A. RICHOUX DATE 7-18-80

CHECKED BY D. NIOLET DATE 7/18/80

APVD [signature] 7/18/80

APVD [signature]

PROJECT MANAGER [signature] 7/18/80

APVD NOT REQ'D

GRAIN LOADING BOOKLET
(SUPPLEMENT TO TRIM & STABILITY BOOKLET)

SIZE A — A S I DRAWING NO C7-1000 29-01-10 — REV 2

SCALE —

SH NO 1 OF

Form A-HTB-W (12-77)

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H V A C
MATERIAL REQN
MECHANICAL
MECH COMPOSITE
BAYOU BLACK
HARVEY
SERVICE FOUNDRY
JOINER CONTRACTOR
ADMEASURER
MARAD (WASH)
MARAD (YARD)
OWNER (HOME)
OWNER (YARD)
ABS (NY)
ABS (NO)
ABS (YARD)
USCG (NO)
USCG (YARD)
USPHS
TOTAL
PARTIAL ISSUE
DATE OF ISSUE

SIZE A — ASI DWG NO — SH NO 2

Form A-HPD-C (9-78)

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5-9	INSTRUCTIONS AND PROCEDURES
10-16	LOADING FORMS FOR LIGHTERS (HOLDS 1 THRU 7)
17	LOADING FORM FOR GRAIN IN HOLDS IN BULK
18-19	LOADING FORMFOR TANKS
20-21	LOADING FORM FOR CONTAINERS (HOLDS 1 THRU 7)
22	SUMMARY OF LOADING CONDITION FORM
23	SAMPLE GRAIN STOWAGE FACTORS
24	LIGHTER CAPACITY GRAPH
25-30	CARGO HOLDS (1 THRU 7) CAPACITY AND CENTER GRAPHS
31	TABLE I ALLOWABLE HEELING MOMENTS
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	APPENDIX (SAMPLE LOADING CONDITION)

SIZE A — REVISION — A.S.I. DWG. NO. — SHT. NO. 3

Form A-HIX-C (1/77)

REVISIONS

REV	SH	DESCRIPTION
1	22 A-14	Lightship revised to reflect removal of PACECO Container Crane Revised sample loading condition to reflect this lightship change.
2	9	Added maximum deck loads for Cargo Hold 1B, & 1C, per F & G approval letter L-772/3083 dated Aug. 25, 1980. JJM 9-2-80

SIZE A — ASI DWG NO — SH NO 4

Form A-HRV-C (10-78)

INSTRUCTIONS AND PROCEDURES FOR GRAIN LOADING CALCULATIONS

(I) OBJECTIVE: This booklet has been developed to allow the vessel's operating crew to select an acceptable loading scheme if grain is to be carried in any of the following configurations;

(A) In Lighters in Bulk

(B) In Cargo Holds in Bulk

(C) Combination of Lighters and Cargo Holds

(II) GENERAL: The instructions contained in this booklet were developed in accordance with the requirements contained in Regulations 10, Part A of the Annex to IMCO Resolution A.264 (VIII). In order to reduce the amount of work required by the operating crew, this booklet was prepared as a supplement to the vessel's Trim and Stability Booklet, ASI Dwg. No. 29-01-09, and therefore concerns itself with calculations directly related to grain loading. The vessel's trim and drafts can be determined from the Trim and Stability Booklet.

(III) INSTRUCTIONS: (A) Grain Loaded In Lighters

(1) On sheets 10 thru 16 , record the ullages of seach grain loaded lighter in Column (2). Ullage is the distance from the top of hatch coaming to the grain surface. A fully loaded lighter has an ullage of 0.0' and an empty lighter has an ullage of 11.62'.

(2) Determine the capacity of the lighter from the graph on sheet 24 . Enter the graph on the vertical ullage scale at the left side of the sheet and read across the graph horizontally to the capacity line. At this intersection point, read vertically,down to the capacity scales and determine the capacity in cubic feet. Record this capacity in Column (3). Note, if the lighter is full, merely enter the word full in Column (2) and the capacity of 20,100 cu.ft. in Column (3).

(3) Record the grain stowage factor in cubic feet per long ton in Column (4) and determine the weight of grain in long tons by dividing the capacity Column (3) by the stowage factor, Column (4) and enter the results in Column 5. A table of typical stowage factors for various grains has been included as a guide on sheet 23 . These test weights are average figures based on information obtained from grain ports. The specific test weights of particular grain cargos may vary from these figures shown. Data on actual test weights is usually available from grain inspection offices at shipping elevators.

(4) Add 80.00 Tons shown in Column (6) to the weight of grain Column (5) to account for the steel weight of the lighter. Enter the total lighter weight in Column (7).

(5) Multiply the total weight of the lighter (Column 7) by the V.C.G. (Column 8) and enter the vertical moment in Column (9).

(III) INSTRUCTIONS: (A) (6) Determine the volumetric shifting moments from the graphs on sheet 32 or 33 . Note if centerline shifting boards are added to the lighter use the graph on sheet 32 . If the lighter is loaded without shifting boards use the graph on sheet 33 . To determine the shifting moment enter the graph of the recorded ullage from column (2), and read horizontally across the sheet to the plot of shifting moments. At this intersection read vertically downward to the scale below the plot. Read the volumetric shifting moments (in $feet^4$) and record this in column 10. Note due to the fact that grain will settle after loading a lighter is assumed to have a shifting moment even if it is full at the time of loading. If the lighter is full merely record the full volumetric shifting moment found at the top of the graph.

(7) Compute the actual heeling moment of the grain by dividing the volumetric shifting moment (column 10) by the stowage factor (column 4). Enter this heeling moment in ft- long tons in column (11).

(8) Repeat instruction 1 thru 7 for each lighter loaded with grain and total columns 3, 5, 7, 9 & 11, for each cargo hold. Compute the V.C.G. for the cargo hold by dividing the summation of vertical moments column (9) by the summation of the total lighter weight (column 7) and enter the results in column (8). Record the totals for each hold on the appropriate line on sheet 22 .

(B) Grain Loaded In Cargo Holds

(1) On sheet 17 record the ullage of each grain loaded cargo hold in column (2). Ullages are measured from the top of the hatch coaming to the surface of the grain.

(2) Determine the capacity of the cargo hold from the graphs on sheets 25 thru 30 . In order to use these graphs read down the vertical ullage scale found on the left side of the sheet to the ullage recorded in column 2. Read across the sheet, horizontally, to the capacity line. At this intersection construct a vertical line to the bottom of the graph and record the capacity of the hold in cubic feet in column (3). If the hold is full merely enter the word full in column (2) and obtain the full capacity from the top of the capacity graph for the appropriate cargo hold.

(3) Record the stowage factor for the grain in cubic feet per long ton (see note III A(3)) in column (4), and determine the weight of grain by dividing the capacity (column 3) by the stowage factor column (4). Record the weight of grain in each cargo hold in column (5).

(4) Determine the V.C.G. of the cargo holds by reading across on a horizontal line from the intersection of the vertical line constructed in step 2 and the V.C.G. curve, to the scale labeled "Height Above BL - Feet" at the extreme left of the graph. Record this V.C.G. in column 6. A full cargo holds V.C.G. can be obtained at the top end of the V.C.G. curve on each graph.

III INSTRUCTIONS: (B) (5) Multiply the weight of grain (column 5) by the V.C.G. (column 6) and enter the vertical moments in column (7).

(6) Determine the volumetric shifting moment on sheets 34 thru 39 for each cargo hold similar to the method described in instruction III A. (6). Record this shifting moment in column (8).

(7) Compute the actual heeling moment of the grain by dividing the volumetric shifting moments (Column 8) by the stowage factor (column 4) and record this item (foot-long tons) in column (9).

(8) Repeat instruction 1 thru 7 for each cargo hold loaded with grain and total column 3, 5, 7, 9. Record these totals on the appopriate line on sheet 22 .

(C) Combinations Of Lighters Loaded With Grain And Cargo Holds Loaded In Bulk.

(1). If the vessel is loaded with a combination of grain loaded lighters and cargo holds loaded in bulk, follow the applicable instructions for each respective condition.

(2). If some lighters or some holds are loaded with cargo other than grain enter the weight and V.C.G. above baseline of the cargo only, on the appropriate line of the forms. Continue with the calculations for the grain loaded spaces as described above. (See trim & stability booklet for details of non-grain cargos).

(D) Miscellaneous Load Items

(1) After the load items for the cargo holds have been compiled complete the calculation of the vessel's loading condition by recording the various tank loads and if applicable container loads. On sheets 18 and 19 record the sounding of each respective tank. From the vessel's sounding table, ASI dwg. 29-01-04 determine the tank's weight and V.C.G. and record these items in the appropriate columns. Calculate the vertical moment by multiplying the tanks weight by the V.C.G. and record this product in the space provided. If the tank is slack or is expected to be slack any time during the voyage record the free surface in the space provided. The free surface can be found on the tank tables shown on sheets 42-44 . Repeat this procedure for all tanks in each group.

(2) Sum the weights, vertical moments & free surface for each group of tanks and enter these totals on the line at the bottom of each group. Calculate the group's V.C.G. by dividing the groups total vertical moment by the groups total weight. Note the diesel oil and lube oil total should be combined in the space provided on sheet 18 by recording the totals for each group of tanks in the appropriate columns.

(3) If containers are to be loaded, their effect can be accounted for by using sheets 20 and 21 . Simply record the number and weight of each container sotwage position in the appropriate space on these two sheets. Calculate the vertical moment of each space by multiplying

INSTRUCTIONS: (D) (3) the weight of containers by their appropriate V.C.G. Compute the groups total V.C.G. by dividing the total "vertical moment" by the total "weight". Otain the total container weight and center by combining the subtotal for holds 1,2, & 3 with the subtotal for holds 4,5,6,7 & over Eng Room at the at the bottom of sheet 21 .

(E) Summary Of Loading Condition

(1) Record on sheet 22 all required summary data from each of the sheets previously compiled in the space provided for each load item summary. The total of all weight items will be the vessel's displacement. Compute the vessel's V.C.G. above baseline by dividing the total vertical moment by the total weight (displacement). Total the liquid free surface for all tanks. Total the actual grain heeling moments for all grain carg.

(2) Complete the summary sheet by following the steps listed below:

(a) Record the Ship's Displacement.

(b) Determine the vessel's KM_T (Transverse Metacenter) At a Draft Corresponding To The Vessel's Displacement (see sheet 40).

(c) Add 0.09' to the Vessel's VCG To Obtain The Vessel's KG (Height Of Center Of Gravity Above Keel).

(d) Calculate the Free Surface Correction by Dividing the Total Liquid Free Surface by the Vessel's Displacement.

(e) Calculate the Vessel's Virtual KG by Adding the Free Surface Correction to the KG.

(f) Calculate the Vessel's Available GM_T (Transverse Metacentric Height) by Subtracting the Virtual KG from the KM_T.

(g) Record the Total Actual Heeling Moment.

(h) Calculate the Allowable Heeling Moment from Table I Using Linear Interpolation for the Vessel's Displacement and Again For the Vessel's Virtual KG.

(i) Determine if the Allowable Heeling Moment is Greater than or Equal to the Acutal Heeling Moment.

(j) Determine the Required GM_T at a Draft Corresponding to the Vessel's Displacement (See Sheet 41). Check if the Available GM_T (Corrected For Free Surface) is Greater than or Equal to the Required GM_T.

(3) If items 2(i) & 2(j) are satisfied the chosen loading condition is acceptable. If not the vessel's grain sotwage must be rearranged and/or the slack free surface be eliminated.

(III) INSTRUCTIONS (E) (4) The above calculations should be completed for both the departure and arrival conditions. Also if a drastic change of loading is expected during an intermediate stage of the voyage the calculations for this condition must also be investigated.

(F) Maximum Deck Loads

(1) If grain is loaded in the cargo holds, care must be exercised to assure that the maximum permissible deck loads shown below are not exceeded for each respective hold. (See ASI Dwg. 29-01-01, "Capacity Plan")

CARGO HOLD	MAX. PERMISSIBLE DECK LOAD (POUNDS/SQ.FT.)
1	1200 (1A), 1500 (1B), 3600 (1C) △2
2	3600
3	3600
4	3600
5	430
6	1100
7	1800

CARGO HOLD NO. 1

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENT	(10) VOLUMETRIC SHIFT.MOM.	(11) ACTUAL HEELING MOM.
1A-3*					80.0		43.00			
1A-4*					80.0		57.17			
1A-5*					80.0		74.50			
1A-6*					80.0		88.67			
1B-2*					80.0		28.50			
1B-3*					80.0		42.67			
1B-4*					80.0		56.83			
1B-5*					80.0		74.50			
1B-6*					80.0		88.67			
1C-1					80.0		14.50			
1C-2					80.0		28.67			
1C-3					80.0		42.83			
1C-4					80.0		57.00			
1C-5*					80.0		74.50			
1C-6*					80.0		88.67			
TOTALS										

*NOTE: SPACE PROVIDED FOR LIGHTERS IN THE EVENT THAT THE CONTAINER GUIDES ARE REMOVED TO PERMIT THE VESSEL TO CARRY A FULL COMPLEMENT OF LIGHTERS.

CARGO HOLD NO. 2

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENT	(10) VOLUMETRIC SHIFT. MOM.	(11) ACTUAL HEELING MOM.
2A-1					80.0		12.50			
2A-2					80.0		26.67			
2A-3					80.0		40.83			
2A-4					80.0		55.00			
2A-5					80.0		73.00			
2A-6					80.0		87.17			
2B-1					80.0		12.50			
2B-2					80.0		26.67			
2B-3					80.0		40.83			
2B-4					80.0		55.00			
2B-5					30.0		73.00			
2B-6					80.0		87.17			
2C-1					80.0		12.50			
2C-2					80.0		26.67			
2C-3					80.0		40.83			
2C-4					80.0		55.00			
2C-5					80.0		73.00			
2C-6					80.0		87.17			
TOTALS										

CARGO HOLD NO. 3

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENT	(10) VOLUMETRIC SHIFT.MOM.	(11) ACTUAL HEELING MOM.
3A-1					80.0		12.50			
3A-2					80.0		26.67			
3A-3					80.0		40.83			
3A-4					80.0		55.00			
3A-5					80.0		73.00			
3A-6					80.0		87.17			
3B-1					80.0		12.50			
3B-2					80.0		26.67			
3B-3					80.0		40.83			
3B-4					80.0		55.00			
3B-5					80.0		73.00			
3B-6					80.0		87.17			
TOTALS										

OVER ENGINE ROOM AND CARGO HOLD NO. 5

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFT. MOM.	(11) ACTUAL HEELING MOM.
ENG. ROOM 5					80.0		73.00			
ENG. ROOM 6					80.0		87.17			
5A-3					80.0		41.50			
5A-4					80.0		55.67			
5A-5					80.0		73.00			
5A-6					80.0		87.17			
TOTALS										

CARGO HOLD NO. 4

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFTING MOM	(11) ACTUAL HEELING MOM.
4A-1					80.0		12.50			
4A-2					80.0		26.67			
4A-3					80.0		40.83			
4A-4					80.0		55.00			
4A-5					80.0		73.00			
4A-6					80.0		87.17			
4B-1					80.0		12.50			
4B-2					80.0		26.67			
4B-3					80.0		40.83			
4B-4					80.0		55.00			
4B-5					80.0		73.00			
4B-6					80.0		87.17			
4C-1					80.0		12.50			
4C-2					80.0		26.67			
4C-3					80.0		40.83			
4C-4					80.0		55.00			
4C-5					80.0		73.00			
4C-6					80.0		87.17			
TOTALS										

CARGO HOLD NO. 6

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WT. OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFT.MOM.	(11) ACTUAL HEELING MOM.
6A-2					80.0		27.00			
6A-3					80.0		41.17			
6A-4					80.0		55.33			
6A-5					80.0		73.00			
6A-6					80.0		87.17			
6B-2					80.0		27.00			
6B-3					80.0		41.17			
6B-4					80.0		55.33			
6B-5					80.0		73.00			
6B-6					80.0		87.17			
TOTALS										

CARGO HOLD NO. 7 AND OVER STEERING GEAR ROOM

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFT. MOM.	(11) ACTUAL HEELING MOM.
7A-3					80.0		41.50			
7A-4					80.0		55.67			
7A-5					80.0		73.00			
7A-6					80.0		87.17			
7B-3					80.0		41.50			
7B-4					80.0		55.67			
7B-5					80.0		73.00			
7B-6					80.0		87.17			
STR. GEAR 5					80.0		68.17			
STR. GEAR 6					80.0		82.33			
TOTALS										

GRAIN LOADED IN BULK IN CARGO HOLDS

(1) CARGO HOLD	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) V.C.G.	(7) VERTICAL MOMENTS	(8) VOLUMETRIC SHIFT. MOM.	(9) ACTUAL HEELING MOM.
Cargo Hold 1								
Cargo Hold 2								
Cargo Hold 3								
Cargo Hold 4								
Cargo Hold 5								
Cargo Hold 6								
Cargo Hold 7								
TOTALS								

CONDITION:

DATE: BY:

TANK	SOUNDING	WEIGHT L. TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	FREE SURFACE FT-TONS
FUEL OIL TANKS					
FUEL OIL STORAGE P					
FUEL OIL STORAGE S					
#3 WING FUEL OIL P					
#3 WING FUEL OIL S					
#6 WING FUEL OIL P					
#6 WING FUEL OIL S					
FUEL OIL STORAGE OVERFLOW P					
FUEL OIL STORAGE OVERFLOW S					
#3 WING F.O. OVERFLOW P					
#3 WING F.O. OVERFLOW S					
#6 WING F.O. OVERFLOW P					
#6 WING F.O. OVERFLOW S					
TOTAL FUEL OIL					
DIESEL OIL TANKS					
DIESEL OIL P					
DIESEL OIL S					
400 GAL.DIESEL OIL GEN.DAY TK.					
TOTAL DIESEL OIL					
LUBE OIL TANKS					
LUBE OIL STORAGE P					
LUBE OIL STORAGE DSL. GEN.TK.					
LUBE OIL GRAVITY S					
LUBE OIL SETTLING S					
MAIN LUBE OIL SUMP					
TOTAL LUBE OIL					
SANITARY WASTE TANKS					
500 GAL. SEWAGE TK.					
BILGE SLOP TK.					
MISCELLANEOUS					
TOTAL SANITARY WASTE					
TOTAL DIESEL OIL AND LUBE OIL					
TOTAL DIESEL OIL					
TOTAL LUBE OIL					
TOTAL DIESEL OIL & LUBE OIL					

CONDITION:

DATE: BY:

TANK	SOUNDING	WEIGHT L.TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	FREE SURFACE FT-TONS
BALLAST TANKS & FLUME TANKS					
FOREPEAK S.W. BALLAST TK.					
FWD S.W. BALLAST TK. C.L.					
#1 S.W. BALLAST TK.					
#2 D.B. S.W. BALLAST P					
#2 D.B. S.W. BALLAST S					
#2 WING S.W. BALLAST P					
#2 WING S.W. BALLAST S					
#2A WING S.W. BALLAST P					
#2A WING S.W. BALLAST S					
#3 D.B. S.W. BALLAST P					
#3 D.B. S.W. BALLAST S					
#4 D.B. S.W. BALLAST P					
#4 D.B. S.W. BALLAST S					
#4 WING S.W. BALLAST P					
#4 WING S.W. BALLAST S					
#7 S.W. BALLAST P					
#7 S.W. BALLAST S					
AFT S.W. BALLAST P					
AFT S.W. BALLAST S					
FWD FLUME TANK					
AFT FLUME TANK					
TOTAL BALLAST					
FRESH WATER TANKS					
DISTILLED WATER P					
DISTILLED WATER S					
POTABLE WATER P					
POTABLE WATER S					
TOTAL FRESH WATER					

CONDITION:

DATE: BY:

HOLD	NUMBER OF CONTAINERS	WEIGHT L.TONS	VCG ABOVE BL FT	VERTICAL MOMENT FT.-TONS	REMARKS
CONTAINERS HOLD 1,2,&3					
CONTAINERS HOLD 1A-3			40.09		
CONTAINERS HOLD 1A-4			48.16		
CONTAINERS HOLD 1A-5			56.22		
CONTAINERS HATCH 1A-6			71.55		
CONTAINERS HATCH 1A-7			79.61		
CONTAINERS HATCH 1A-8			87.68		
CONTAINERS HOLD 1B-1			25.60		
CONTAINERS HOLD 1B-2			33.66		
CONTAINERS HOLD 1B-3			41.73		
CONTAINERS HOLD 1B-4			49.79		
CONTAINERS HOLD 1B-5			57.85		
CONTAINERS HATCH 1B-6			71.55		
CONTAINERS HATCH 1B-7			79.61		
CONTAINERS HATCH 1B-8			87.68		
CONTAINERS HATCH 1C-6			71.55		
CONTAINERS HATCH 1C-7			79.61		
CONTAINERS HATCH 1C-8			87.68		
CONTAINERS HATCH 2A-6			70.05		
CONTAINERS HATCH 2A-7			78.11		
CONTAINERS HATCH 2A-8			86.17		
CONTAINERS HATCH 2B-6			70.05		
CONTAINERS HATCH 2B-7			78.11		
CONTAINERS HATCH 2B-8			86.17		
CONTAINERS HATCH 2C-6			70.05		
CONTAINERS HATCH 2C-7			78.11		
CONTAINERS HATCH 2C-8			86.17		
CONTAINERS HATCH 3A-6			70.05		
CONTAINERS HATCH 3A-7			78.11		
CONTAINERS HATCH 3A-8			86.17		
CONTAINERS HATCH 3B-6			70.05		
CONTAINERS HATCH 3B-7			78.11		
CONTAINERS HATCH 3B-8			86.17		
TOTALS					

SUMMARY OF CONDITION: BY: DATE:

ITEM	DEPARTURE CONDITION					ARRIVAL CONDITION				
	WEIGHT L. TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	LIQUID FREE SURFACE FT-TONS	ACTUAL GRAIN HEELING MOM. FT-TONS	WEIGHT L.TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	LIQUID FREE SURFACE FT-TONS	ACTUAL GRAIN HEELING MOM. FT-TONS
LIGHTSHIP W/CREW & EFFECTS ⚠	16543.27*	38.99	645022.10	-	-	16543.27*	38.99	645022.10	-	-
CONSUMABLES & STORES										
CARGO HOLD NO. 1										
CARGO HOLD NO. 2										
CARGO HOLD NO. 3										
CARGO HOLD NO. 4										
CARGO HOLD NO. 5 & ENG. RM.										
CARGO HOLD NO. 6										
CARGO HOLD NO. 7 & STR. GEAR										
SALT WATER BALLAST										
FRESH WATER										
FUEL OIL										
DIESEL OIL & LUBE OIL										
SANITARY WASTE TK.										
CONTAINERS										
TOTALS										

NOTES

1) Free Surface Correction is calculated by dividing Total Liquid Free Surface by Total Displacement.

2) GM (Corrected for Free Surface) must be ≥ Req'd GM (see Sheet 41 .)

*NOTE: 25.0 L. TONS @ 70.0' ABV. B.L.USED FOR CREW & EFFECTS .

DEPARTURE DISPLACEMENT ________ L.TONS
DEPARTURE KM_T ________ FEET
DEPARGURE KG^T = VCG + 0.09' ________ FEET
FREE SURFACE CORRECTION = ________ FEET
VIRTUAL KG = KG + FREE SURFACE CORR. = ________ FEET
DEPARTURE AVA. GM = KM_T – VIRTUAL KG = ________ FEET
TOTAL ACTUAL HEELING MOMENT = ________ FT-TONS
ALLOWABLE HEELING MOMENT (FROM TABLE I) ________ FT-TONS
(ALLOWABLE HEELING MOMENT ≥ ACTUAL H.M.)

REQUIRED GM_T @ ________FT. LCF DRAFT = ________ FEET
(SEE SHEET 41)

ARRIVAL DISPLACEMENT ________ L.TONS
ARRIVAL KM_T ________ FEET
ARRIVAL KG^T = VCG + 0.09' ________ FEET
FREE SURFACE CORRECTION = ________ FEET
VIRTUAL KG = KG + FREE SURFACE CORR. = ________ FEET
ARRIVAL AVA. GM = KM_T – VIRTUAL KG = ________ FEET
TOTAL ACTUAL HEELING MOMENT = ________ FT-TONS
ALLOWABLE HEELING MOMENT (FROM TABLE I) ________ FT-TONS
(ALLOWABLE HEELING MOMENT ≥ ACTUAL H.M.)

REQ'D GM_T @ ________FT LCF DRAFT = ________ FEET
(SEE SHEET 41)

CONDITION:

DATE:

BY:

HOLD	NUMBER OF CONTAINERS	WEIGHT L.TONS	V.C.G. ABOVE BL FT	VERTICAL MOMENT FT-TONS	REMARKS
CONTAINERS HOLD 4, 5, 6, 7, & OVER ENGINE ROOM					
CONTAINERS HATCH 4A-6					
CONTAINERS HATCH 4A-7					
CONTAINERS HATCH 4A-8					
CONTAINERS HATCH 4B-6					
CONTAINERS HATCH 4B-7					
CONTAINERS HATCH 4B-8					
CONTAINERS HATCH 4C-6					
CONTAINERS HATCH 4C-7					
CONTAINERS HATCH 4C-8					
CONTAINERS HATCH ER-6					
CONTAINERS HATCH ER-7					
CONTAINERS HATCH ER-8					
CONTAINERS HATCH 5A-6					
CONTAINERS HATCH 5A-7					
CONTAINERS HATCH 5A-8					
CONTAINERS HATCH 6A-6					
CONTAINERS HATCH 6A-7					
CONTAINERS HATCH 6A-8					
CONTAINERS HATCH 6B-6					
CONTAINERS HATCH 6B-7					
CONTAINERS HATCH 6B-8					
CONTAINERS HATCH 7A-6					
CONTAINERS HATCH 7A-7					
CONTAINERS HATCH 7A-8					
CONTAINERS HATCH 7B-6					
CONTAINERS HATCH 7B-7					
CONTAINERS HATCH 7B-8					
TOTALS					

TOTAL CONTAINERS				
HOLDS 1, 2, & 3				
HOLDS 4, 5, 6, 7 & ENG. ROOM				
TOTAL CONTAINERS				

AVERAGE TEST WEIGHT OF THE PRINCIPAL GRAINS LOADED AT UNITED STATES PORTS

The Test Weight of a particular grain is the actual weight in pounts of a U.S. (Winchester)Bushel which is a unit of volume (dry measure) equaling 2,150.42 cubic inches or 1.2445 cubic feet.

	LBS. PER BUSHEL		LBS. PER BUSHEL
BARLEY	50	SORGHUM (MILO)	57
CORN	55	SOYBEANS	56
LINSEED	50	SUNFLOWER SEED	28
MILLET	57	WHEAT, AMBER DURUM	61
OATS	40	WHEAT, HARD WINTER	62
PEANUTS	51	WHEAT, NORTHERN SPRING	60
RICE	60	WHEAT, SOFT RED	59
RYE	58	WHEAT, WHITE	61
SAFFLOWER SEED	41		

NOTE: THE ABOVE TEST WEIGHTS ARE AVERAGE FIGURES BASED ON INFORMATION OBTAINED FROM GRAIN LOADING PORTS. THE SPECIFIC TEST WEIGHTS OF PARTICULAR GRAIN CARGOES MAY VARY FROM THE FIGURES SHOWN. DATA ON TEST WEIGHTS IS USUALLY AVAILABLE FROM GRAIN INSPECTION OFFICES AT SHIPPING ELEVATORS.

THE ABOVE TEST WEIGHTS WHEN USED IN CONJUNCTION WITH THE STOWAGE FACTOR TABLE SHOWN AT RIGHT, WILL GIVE THE APPROXIMATE STOWAGE FACTOR FOR A CONVENTIONAL GENERAL CARGO VESSEL WITH ONE TWEEN DECK.

THE STOWAGE FACTOR FOR SPECIALLY SUITABLE BULK CARRIERS WILL GENERALLY BE FROM ONE TO TWO CUBIC FEET PER LONG TONS LESS DUE TO COMPACTION AND THE CONFIGURATION OF THE HOLDS.

CARGO STOWAGE FACTORS

1 U.S. Bushel = 1.2445 Cu.Ft.

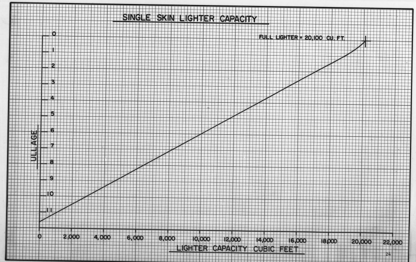
$$\frac{2240 \text{ lbs.}}{\text{Test Weight per bu. (lbs.)}} \times 1.2445 \text{ cu.ft.} = \text{cu.ft.per L-Tons}$$

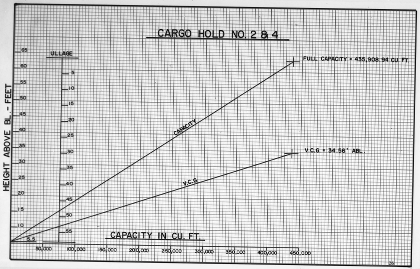
TEST WEIGHT	CU.FT.PER LONG TON	TEST WEIGHT	CU.FT. PER LONG TON
32	87.11	50	55.75
33	84.47	51	54.66
34	81.99	52	53.61
35	79.65	53	52.60
36	77.43	54	51.62
37	75.34	55	50.68
38	73.36	56	49.78
39	71.48	57	48.91
40	69.69	58	48.06
41	67.99	59	47.25
42	66.37	60	46.46
43	64.83	61	45.70
44	63.35	62	44.96
45	61.95	63	44.25
46	60.60	64	43.56
47	59.31	65	42.89
48	58.08	66	42.24
49	56.89	67	41.61

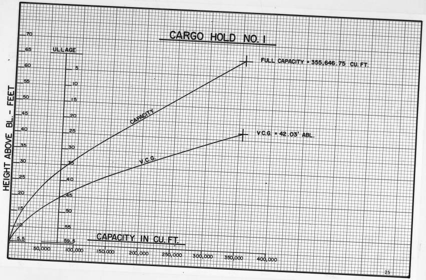
When test weights are for Canadian Imperial Bushels, multiply the above stowage factors by 1.0315.

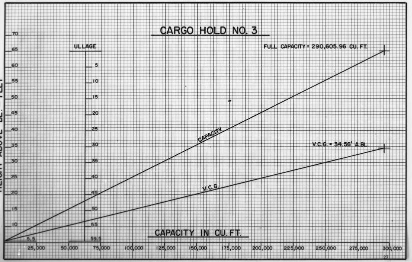
(1 Canadian Imperial Bushel equals 1.2837 Cu.Ft.)

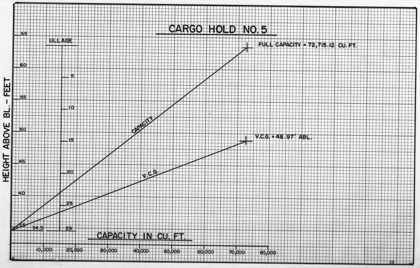
Data taken from "General Information for Grain Loading", 1976, published by the National Cargo Bureau, Inc.
New York, New York

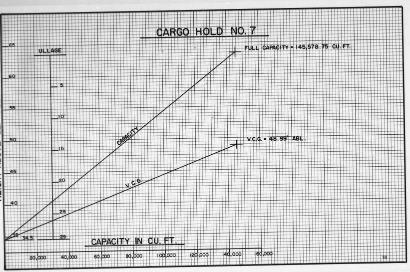



CARGO HOLD NO. 2 & 4
ULLAGE
FULL CAPACITY = 435,908.94 CU. FT.
CAPACITY
V.C.G. = 34.56' ABL.
V.C.G.
HEIGHT ABOVE BL. - FEET
CAPACITY IN CU. FT.
50,000
100,000
150,000
200,000
250,000
300,000
350,000
400,000
450,000
5.5
26


CARGO HOLD NO. 1
ULLAGE
FULL CAPACITY = 355,646.75 CU. FT.
CAPACITY
V.C.G. = 42.03' ABL.
V.C.G.
HEIGHT ABOVE BL. - FEET
CAPACITY IN CU. FT.
50,000
100,000
150,000
200,000
250,000
300,000
350,000
400,000
5.5
59.5
25


CARGO HOLD NO. 3
ULLAGE
FULL CAPACITY = 290,605.96 CU. FT.
CAPACITY
V.C.G. = 34.56' A.BL.
V.C.G.
HEIGHT ABOVE BL. - FEET
CAPACITY IN CU. FT.
25,000
50,000
75,000
100,000
125,000
150,000
175,000
200,000
225,000
250,000
275,000
300,000
5.5
59.5
27


CARGO HOLD NO. 5
ULLAGE
FULL CAPACITY = 72,715.12 CU. FT.
CAPACITY
V.C.G. = 48.97' ABL.
V.C.G.
HEIGHT ABOVE BL. - FEET
CAPACITY IN CU. FT.
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
34.5
29
28



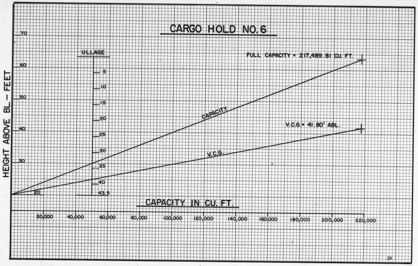
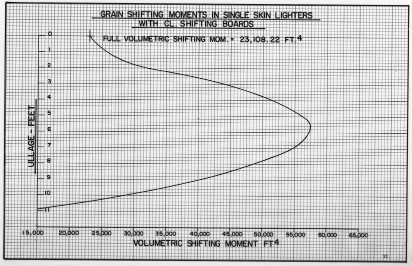


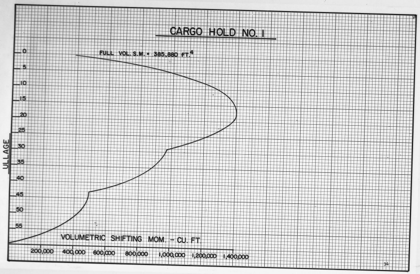
TABLE I

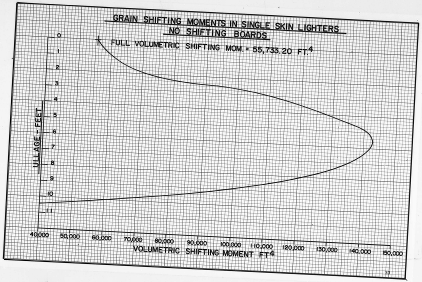
ALLOWABLE HEELING MOMENTS FT-TONS

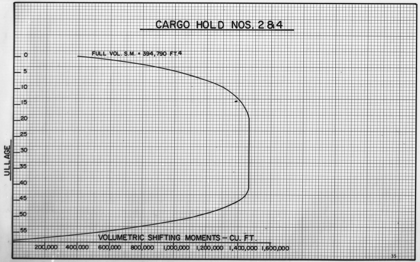
VIRTUAL VERTICAL CENTER OF GRAVITY (KG + F.S. CORR.), FT.

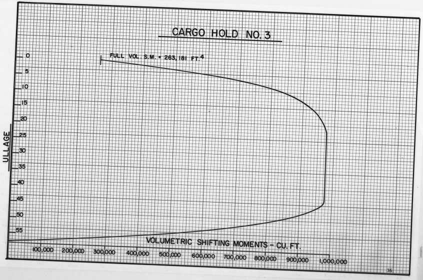
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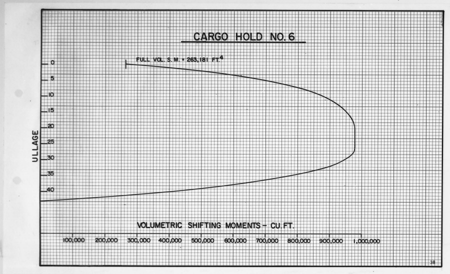


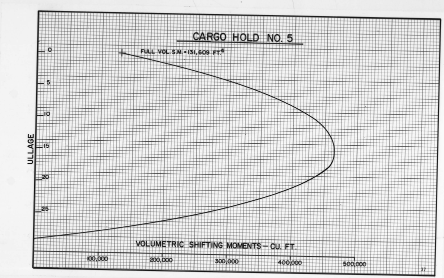

CARGO HOLD NO. 1
FULL VOL. S.M. = 385,880 FT.4
ULLAGE
0
5
10
15
20
25
30
35
40
45
50
55
VOLUMETRIC SHIFTING MOM. - CU. FT.
200,000 400,000 600,000 800,000 1,000,000 1,200,000 1,400,000
34

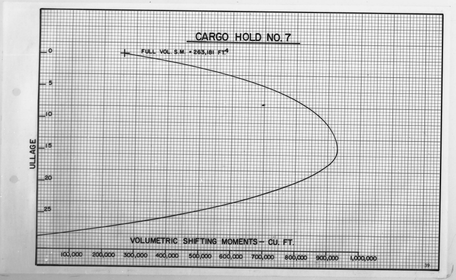

GRAIN SHIFTING MOMENTS IN SINGLE SKIN LIGHTERS
NO SHIFTING BOARDS
FULL VOLUMETRIC SHIFTING MOM. = 55,733.20 FT.4
ULLAGE - FEET
0
1
2
3
4
5
6
7
8
9
10
11
40,000 50,000 60,000 70,000 80,000 90,000 100,000 110,000 120,000 130,000 140,000 150,000
VOLUMETRIC SHIFTING MOMENT FT4
33

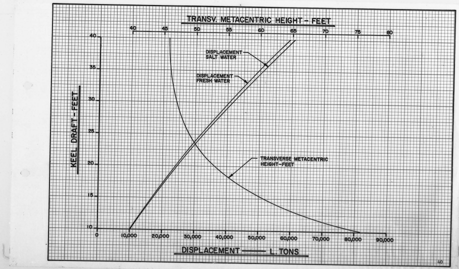

CARGO HOLD NOS. 2 & 4
FULL VOL. S.M. = 394,790 FT.4
ULLAGE
0
5
10
15
20
25
30
35
40
45
50
55
VOLUMETRIC SHIFTING MOMENTS - CU. FT.
200,000 400,000 600,000 800,000 1,000,000 1,200,000 1,400,000 1,600,000
35


CARGO HOLD NO. 3
FULL VOL. S.M. = 263,181 FT.4
ULLAGE
0
5
10
15
20
25
30
35
40
45
50
55
VOLUMETRIC SHIFTING MOMENTS - CU. FT.
100,000 200,000 300,000 400,000 500,000 600,000 700,000 800,000 900,000 1,000,000
36


CARGO HOLD NO. 6
FULL VOL. S.M. = 263,181 FT.4
ULLAGE
0
5
10
15
20
25
30
35
40
VOLUMETRIC SHIFTING MOMENTS – CU. FT.
100,000
200,000
300,000
400,000
500,000
600,000
700,000
800,000
900,000
1,000,000
38


CARGO HOLD NO. 5
FULL VOL. S.M. = 131,609 FT.4
ULLAGE
0
5
10
15
20
25
VOLUMETRIC SHIFTING MOMENTS – CU. FT.
100,000
200,000
300,000
400,000
500,000
37


CARGO HOLD NO. 7
FULL VOL. S.M. = 263,181 FT.4
ULLAGE
0
5
10
15
20
25
VOLUMETRIC SHIFTING MOMENTS – CU. FT.
100,000
200,000
300,000
400,000
500,000
600,000
700,000
800,000
900,000
1,000,000
39

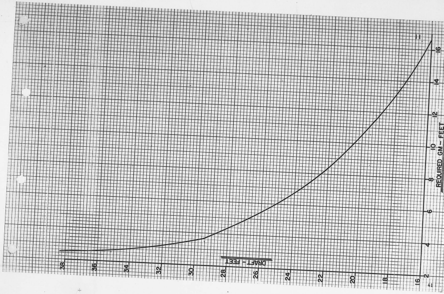

TRANSV. METACENTRIC HEIGHT – FEET
40
45
50
55
60
65
70
75
80
DISPLACEMENT SALT WATER
DISPLACEMENT FRESH WATER
TRANSVERSE METACENTRIC HEIGHT–FEET
KEEL DRAFT – FEET
10
15
20
25
30
35
40
0
10,000
20,000
30,000
40,000
50,000
60,000
70,000
80,000
90,000
DISPLACEMENT —— L. TONS
40

RED. 6X DATE 7-81 MA. NO. H-205 BLDR. NO. 29-01-10 FRAME NO. 11

BALLAST TANK SUMMARY

TANK	FRAME	CAPACITIES 100% FULL GALLONS	100% FULL S.W.L.TONS	98% FULL S.W.L.TONS	100% V.C.G. ABOVE B.L. FEET	98% V.C.G. ABOVE B.L. FEET	L.C.G. FROM F.P. FEET	T.C.G. FROM C.L. FEET	FREE SURFACE FT.-TONS
FOREPEAK	-8-21	139074.75	531.15	520.53	23.47	22.93	21.18	-0.02	422.9
FWD. BALLAST CL.	21-44	227659.13	869.48	852.09	22.22	21.86	70.79	0.0	2954.7
NO.1 S.W. BALLAST CL.	52-55	344012.69	1313.85	1287.57	14.77	14.54	173.54	0.0	21687.9
NO.2 D.B. S.W. BALLAST P	61-70	181235.75	692.18	678.34	3.55	3.45	321.63	20.98	19453.8
NO.2 D.B. S.W. BALLAST S	61-70	181235.75	692.18	678.34	3.55	3.45	321.63	-20.98	19453.8
NO.3 D.B. S.W. BALLAST P	70-76	129786.56	495.68	485.77	3.57	3.47	411.00	22.07	14503.8
NO.3 D.B. S.W. BALLAST S	70-76	129786.56	495.68	485.77	3.57	3.47	411.00	-22.07	14503.8
NO.4 D.B. S.W. BALLAST P	76-85	177218.13	676.83	663.29	3.57	3.48	499.74	20.74	19111.9
NO.4 D.B. S.W. BALLAST S	76-85	177218.13	676.83	663.29	3.57	3.48	499.74	-20.74	19111.9
NO.2 WING BALLAST P	61-67	350682.25	1339.33	1312.54	34.11	33.59	302.30	42.29	555.9
NO.2 WING BALLAST S	61-67	350682.25	1339.33	1312.54	34.11	33.59	302.30	42.29	555.9
NO.2A WING BALLAST P	67-73	360218.94	1375.75	1348.24	32.82	32.28	374.36	42.89	584.5
NO.2A WING BALLAST S	67-73	360218.94	1375.75	1348.24	32.82	32.28	374.26	42.89	584.5
NO.4 WING BALLAST P	79-85	372028.25	1420.85	1392.43	33.70	33.17	520.73	42.64	584.8
NO.4 WING BALLAST S	79-85	372028.25	1420.85	1392.43	33.70	33.17	520.73	42.64	584.8
NO. 7 S.W. BALLAST P	101-121	449793.13	1717.85	1683.49	32.91	32.38	736.77	22.48	23686.7
NO. 7 S.W. BALLAST S	101-121	342341.19	1307.47	1281.32	35.36	34.87	737.18	30.53	8231.7
AFT S.W. BALLAST P	121-132	201089.69	768.00	752.64	39.99	39.79	793.32	20.16	6938.0
AFT S.W. BALLAST S	121-132	201089.69	768.00	752.64	39.99	39.79	793.32	20.16	6938.0
		5,047,400.03	19,277.04	18,891.50					

C7-1000
SHT. NO.



FUEL OIL TANK SUMMARY

TANK	FRAME	CAPACITIES 100% FULL GALLONS	100% FULL BARRELS	98% FULL BARRELS	100% FULL F.O.L.TONS	98% FULL F.O.L.TONS	V.C.G. ABOVE B.L. FEET	L.C.G. FROM F.P. FEET	T.C.G. FROM C.L. FEET	FREE SURFACE FT.-TONS
F.O. STORAGE P	44-52	282565,38	6727.27	6592.72	1014.60	994.31	20.79	127,80	10.12	2358.8
F. O. STORAGE S	44-52	282565.38	6727.27	6592.72	1014.60	994.31	20.79	127.80	10.12	2358.8
NO. 3 WING F.O. P	73-79	369703.38	8801.83	8625.79	1327.49	1300.94	33.07	447.56	42.81	549.6
NO. 3 WING F.O. S	73-79	369703.38	8801.83	8625.79	1327.49	1300.94	33.07	447.56	42.81	549.6
NO. 3 WING F.O. OVFL. P	73-73.3	5404.20	128.66	126.09	19.40	19.02	55.06	414.67	45.01	16.1
NO. 3 WING F.O. OVFL. S	73-73.3	5404.20	128.66	126.09	19.40	19.02	55.06	414.67	45.01	16.1
NO. 6 WING F.O. P	95-101	368430.75	8771.53	8596.10	1322.92	1296.46	31.23	663.88	34.53	4453.3
NO. 6 WING F.O. S	95-101	385216.50	9171.16	8987.74	1383.19	1355.52	30.47	663.78	33.32	6477.1
NO. 6 WING F.O. OVFL. P	95-95.3	5404.19	128.66	126.09	19.40	19.02	55.06	634.67	45.01	16.1
NO. 6 WING F.O. OVFL. S	95-95.3	5404.19	128.66	126.09	19.40	19.02	55.06	634.67	45.01	16.1
TOTAL		2,079,801.55	49,515.53	48,525.22	7,467.89	7,318.56				

C7-1000
SHT. NO.

MISC. TANK SUMMARY

TANK	FRAME	CAPACITIES 100% FULL GALLONS	100% FULL L.O. L.TON	100% FULL D.O. L.TONS	100% FULL F.W. L.TONS	100% FULL S.W. L.TONS	V.C.G. ABOVE B.L.(FT.)	L.C.G. FROM F.P.(FT.)	T.C.G. FROM C.L.(FT.)	FREE SURFACE FT.-TONS
L.O. STORAGE P	89-90	8463.13	29.01				51.88	590.66	26.00	91.3
L.O. STORAGE DIESEL GENERATOR	89-90	1255.36	4.30				51.87	590.66	1.33	.3
L. O. GRAVITY P	89-90	4406.20	15.10				52.62	590.66	4.00	8.0
L. O. SETTLING P	89-90	6015.36	20.62				52.28	590.47	9.83	46.1
MAIN LUBE OIL SUMP	93-94	5657.80	19.39				10.81	618.53	0.0	61.3
DIESEL OIL PORT	85-87	17585.98		57.28			15.82	564.83	40.57	75.2
DIESEL OIL STBD	85-87	17585.98		57.28			15.82	564.83	40.57	75.2
400 GAL.EMER.DIESEL GEN.DAY TK.	87-88	393.63		1.28			12.68	574.56	48.42	.1
DISTILLED WATER PORT	90-95	65424.45			242.94		47.58	613.13	43.77	233.8
DISTILLED WATER STBD	90-95	65424.45			242.94		47.58	613.13	43.77	233.8
POTABLE WATER PORT	90-95	40782.28			151.44		27.03	610.91	40.10	137.8
POTABLE WATER STBD	90-95	40782.28			151.44		27.03	610.91	40.10	137.8
FWD FLUME	52-55	181107.88				691.73	31.09	173.31	0.0	29605.8
AFT FLUME	55-58	2,585,26.25				987.43	14.76	209.97	0.0	35,360.0
BILGE SLOP CL.	86-88	360,11.57				137.54	4.11	572.29	0.0	10,927.8
TOTAL		749,422.60	88.42	115.84	788.76	1,816.70				

C7-1000
SHT. NO.

CARGO HOLD NO. 1

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENT	(10) VOLUMETRIC SHIFT.MOM.	(11) ACTUAL HEELING MOM.
1A-3*	1.0	18,800	55	341.82	80.0	421.82	43.00	18138.18	60,500	1100.00
1A-4*	0.4	19,650	55	357.27	80.0	437.45	57.17	24998.88	57,000	1036.36
1A-5*	FULL	20,100	55	365.45	80.0	445.45	74.50	33186.36	55733.20	1013.33
1A-6*	–	-	–	-	80.0	-	88.67	–	–	–
1B-2*	FULL	20,100	55	365.45	80.0	445.45	28.50	12695.33	55733.20	1013.33
1B-3*	FULL	20,100	55	365.45	80.0	445.45	42.67	19007.35	55733.20	1013.33
1B-4*	FULL	20,100	55	365.45	80.0	445.45	56.83	25314.92	55733.20	1013.33
1B-5*	FULL	20,100	55	365.45	80.0	445.45	74.50	33186.03	55733.20	1013.33
1B-6*	–	–	–	-	80.0	-	88.67	–	–	–
1C-1	FULL	20,100	55	365.45	80.0	445.45	14.50	6459.03	55733.20	1013.33
1C-2	FULL	20,100	55	365.45	80.0	445.45	28.67	12771.05	55733.20	1013.33
1C-3	FULL	20,100	55	365.45	80.0	445.45	42.83	19078.62	55733.20	1013.33
1C-4	FULL	20,100	55	365.45	80.0	445.45	57.00	25390.65	55733.20	1013.33
1C-5*	FULL	20,100	55	365.45	80.0	445.45	74.50	33186.03	55733.20	1013.33
1C-6*	-	-	-	-	80.0	-	88.67	–	–	–
TOTALS	X				X	5313.77	49.57	263412.43	X	12269.66

*NOTE: SPACE PROVIDED FOR LIGHTERS IN THE EVENT THAT THE CONTAINER GUIDES ARE REMOVED TO PERMIT THE VESSEL TO CARRY A FULL COMPLEMENT OF LIGHTERS.

SAMPLE LOADING CONDITION

CARGO HOLD NO. 2

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENT	(10) VOLUMETRIC SHIFT. MOM.	(11) ACTUAL HEELING MOM.
2A-1	1.0	18,800	55	341.82	80.0	421.82	12.50	5572.73	60,500	1100.00
2A-2	0.4	19,650	55	357.27	80.0	437.27	26.67	11618.34	57,000	1036.36
2A-3	0.2	19,900	55	361.82	80.0	441.82	40.83	18039.44	56,250	1022.73
2A-4	0.2	19,900	55	361.82	80.0	441.82	55.00	24,300.10	56,250	1022.73
2A-5	FULL	20,100	55	365.45	80.0	445.45	73.00	32518.18	55,733.20	1013.33
2A-6	–	–	-	-	80.0	–	87.17	-	–	–
2B-1	1.2	18,450	55	335.45	80.0	415.45	12.50	5193.18	62,000	1127.27
2B-2	0.4	19,650	55	357.27	80.0	437.27	26.67	11662.06	57,000	1036.36
2B-3	0.2	19,900	55	361.82	80.0	441.82	40.83	18039.51	56,250	1022.73
2B-4	0.6	19,400	55	352.73	80.0	432.73	55.00	23800.00	58,000	1054.55
2B-5	1.0	18,800	55	341.82	80.0	421.82	73.00	30792.73	60,500	1100.00
2B-6	-	–	-	–	80.0	-	87.17	-	–	–
2C-1	FULL	20,100	55	365.45	80.0	445.45	12.50	5568.18	55,733.20	1013.33
2C-2	FULL	20,100	55	365.45	80.0	445.45	26.67	11880.15	55,733.20	1013.33
2C-3	1.0	18,800	55	341.82	80.0	421.82	40.83	17222.84	60,500	1100.00
2C-4	2.0	17,000	55	309.09	80.0	389.09	55.00	21400.00	70,150	1275.45
2C-5	2.0	17,000	55	309.09	80.0	389.09	73.00	28403.57	70,150	1275.45
2C-6	–	–	-	-	80.0	-	87.17	-		
TOTALS	X				X	6428.17	41.38	266011.07	X	16213.62

CARGO HOLD NO. 3

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENT	(10) VOLUMETRIC SHIFT.MOM.	(11) ACTUAL HEELING MOM.
3A-1	FULL	20,100	55	365.45	80.0	445.45	12.50	5568.18	55733.20	1013.33
3A-2	FULL	20,100	55	365.45	80.0	445.45	26.67	11880.15	55733.20	1013.33
3A-3	2.0	17,000	55	309.09	80.0	389.09	40.83	15886.58	70150	1275.45
3A-4	1.2	18,450	55	335.45	80.0	415.45	55.00	22849.75	62000	1127.27
3A-5	0.8	19,150	55	348.18	80.0	428.18	73.00	31257.27	59250	1077.27
3A-6	-	-	-	-	80.0	-	87.17	-	-	–
3B-1	FULL	20,100	55	365.45	80.0	445.45	12.50	5568.18	55733.20	1013.33
3B-2	1.2	18,450	55	335.45	80.0	415.45	26.67	11080.05	62000	1127.27
3B-3	1.6	17,750	55	322.73	80.0	402.73	40.83	16443.35	65500	1190.91
3B-4	0.4	19,650	55	357.27	80.0	437.27	55.00	24050.00	57000	1036.36
3B-5	0.2	19,900	55	361.82	80.0	441.82	73.00	32252.73	56250	1022.73
3B-6	-	-	-	-	80.0	-	87.17	-		
TOTALS	X				X	4266.34	41.45	176836.24	X	10897.25

OVER ENGINE ROOM AND CARGO HOLD NO. 5

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFT. MOM.	(11) ACTUAL HEELING MOM.
ENG. ROOM 5					80.0		73.00			
ENG. ROOM 6					80.0		87.17			
5A-3					80.0		41.50			
5A-4					80.0		55.67			
5A-5					80.0		73.00			
5A-6					80.0		87.17			
TOTALS	X				X				X	

A-6

CARGO HOLD NO. 4

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFTING MOM	(11) ACTUAL HEELING MOM.
4A-1	FULL	20,100	55	365.45	80.0	445.45	12.50	5568.18	55733.20	1013.33
4A-2	0.2	19,900	55	361.82	80.0	441.82	26.67	11783.29	56,250	1022.73
4A-3	0.4	19,650	55	357.27	80.0	437.27	40.83	17853.85	57,000	1036.36
4A-4	1.2	18,450	55	335.45	80.0	415.45	55.00	22850.00	62,000	1127.27
4A-5	1.0	18,800	55	341.82	80.0	421.82	73.00	30792.73	60,500	1100.00
4A-6	—	-	-	—	80.0	—	87.17	—	—	—
4B-1	0.2	19,900	55	361.82	80.0	441.82	12.50	5522.73	56,250	1022.73
4B-2	FULL	20,100	55	365.45	80.0	445.45	26.67	11880.15	55733.20	1013.33
4B-3	FULL	20,100	55	365.45	80.0	445.45	40.83	18187.72	55733.20	1013.33
4B-4	FULL	20,100	55	365.45	80.0	445.45	55.00	24499.75	55733.20	1013.33
4B-5	1.2	18,450	55	335.45	80.0	415.45	73.00	30328.18	62,000	1127.27
4B-6	-	—	-	—	80.0	-	87.17	-	—	—
4C-1	MACH'Y REPAIR PARTS				80.0	421.82	12.50	5272.75	-	—
4C-2					80.0	421.82	26.67	11249.94	-	—
4C-3					80.0	432.73	40.83	17668.25	-	-
4C-4					80.0	441.82	55.00	24300.00	—	—
4C-5					80.0	421.81	73.00	30792.13	—	—
4C-6	—	—	-	-	80.0	—	87.17	-	—	—
TOTALS	X				X	6495.43	41.34	268549.65	X	10489.68

A-5

CARGO HOLD NO. 6

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WT. OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFT.MOM.	(11) ACTUAL HEELING MOM.
6A-2	0.2	19,900	60	331.67	80.0	411.67	27.00	11115.00	56,250	937.50
6A-3	1.2	18,450	60	307.50	80.0	387.50	41.17	15953.38	62,000	1033.33
6A-4	2.2	16,700	60	278.33	80.0	358.33	55.33	19826.58	76,000	1266.67
6A-5	1.0	18,800	60	313.33	80.0	393.33	73.00	28713.33	60,500	1008.33
6A-6	—	—	-	—	80.0	—	87.17	—	—	—
6B-2	FULL	20,100	60	335.00	80.0	415.00	27.00	11205.00	55733.20	928.89
6B-3	FULL	20,100	60	335.00	80.0	415.00	41.17	17085.55	55733.20	928.89
6B-4	1.2	18,450	60	307.50	80.0	387.50	55.33	21440.38	62,000	1033.33
6B-5	MT	—	—	-	80.0	80	73.00	5840.00	—	—
6B-6	—	-	—	-	80.0	-	87.17	—	-	—
TOTALS	X				X	2847.83	46.06	131179.22	X	7136.94

A-7

CARGO HOLD NO. 7 AND OVER STEERING GEAR ROOM

(1) LIGHTER	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) STEEL WEIGHT OF LIGHTER	(7) WEIGHT OF LIGHTER	(8) V.C.G.	(9) VERTICAL MOMENTS	(10) VOLUMETRIC SHIFT. MOM.	(11) ACTUAL HEELING MOM.
7A-3	FULL	20,100	60	335.00	80.0	415.00	41.50	17222.50	55733.20	928.89
7A-4	1.0	18,800	60	313.33	80.0	393.33	55.67	21896.87	60500	1008.33
7A-5	MT	—	-	-	80.0	80.00	73.00	5840.00	—	—
7A-6	—	—	-	—	80.0	—	87.17	-	-	—
7B-3	FULL	20,100	60	335.00	80.0	415.00	41.50	17222.50	55733.20	928.89
7B-4	FULL	20,100	60	335.00	80.0	415.00	55.67	23103.05	55733.20	928.89
7B-5	MT	—	—	—	80.0	80.00	73.00	5840.00	—	—
7B-6	—	—	—	—	80.0	—	87.17	—	—	—
STR. GEAR 5	MT	-	—	—	80.0	80.00	68.17	5453.60	—	—
STR. GEAR 6	—	-	—	—	80.0	-	82.33	—	—	—
TOTALS	X				X	1878.33	51.42	96578.52	X	3795.00

A-8

RED. 6X DATE 7-81
MA. NO.H-205 BLDR. NO. 29-01-10
FRAME NO.14

GRAIN LOADED IN BULK IN CARGO HOLDS

(1) CARGO HOLD	(2) ULLAGE	(3) CAPACITY CU-FT	(4) STOWAGE FACTOR	(5) WEIGHT OF GRAIN	(6) V.C.G.	(7) VERTICAL MOMENTS	(8) VOLUMETRIC SHIFT. MOM.	(9) ACTUAL HEELING MOM.
Cargo Hold 1								
Cargo Hold 2								
Cargo Hold 3								
Cargo Hold 4								
Cargo Hold 5	9.5'	48750	99.0*	492.42	44.25	21789.77	430,000	4343.43
Cargo Hold 6								
Cargo Hold 7								
TOTALS				492.42	44.25	21789.77		4343.43

* SUNFLOWER SEEDS

A-9

CONDITION: 100% CARGO DEPARTURE

DATE: BY:

TANK	SOUNDING	WEIGHT L.TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	FREE SURFACE FT-TONS
BALLAST TANKS & FLUME TANKS					
FOREPEAK S.W. BALLAST TK.					
FWD S.W. BALLAST TK. C.L.					
#1 S.W. BALLAST TK.					
#2 D.B. S.W. BALLAST P	100%	692.13	3.55	2457.1	0
#2 D.B. S.W. BALLAST S	100%	692.13	3.55	2457.1	0
#2 WING S.W. BALLAST P					
#2 WING S.W. BALLAST S					
#2A WING S.W. BALLAST P					
#2A WING S.W. BALLAST S					
#3 D.B. S.W. BALLAST P	100%	495.65	3.57	1769.5	0
#3 D.B. S.W. BALLAST S	100%	495.65	3.57	1769.5	0
#4 D.B. S.W. BALLAST P	100%	676.83	3.57	2416.28	0
#4 D.B. S.W. BALLAST S	100%	676.83	3.57	2416.28	0
#4 WING S.W. BALLAST P					
#4 WING S.W. BALLAST S					
#7 S.W. BALLAST P					
#7 S.W. BALLAST S					
AFT S.W. BALLAST P					
AFT S.W. BALLAST S					
FWD FLUME TANK	42%	289.45	28.20	8162.49	20,804.0
AFT FLUME TANK ⚠	40%	394.39	10.57	4167.31	20943.0
TOTAL BALLAST ⚠		4413.09	5.80	25615.56	41747.0
FRESH WATER TANKS					
DISTILLED WATER P	100%	242.93	47.58	11,558.6	238.8
DISTILLED WATER S	100%	242.93	47.58	11,558.6	238.8
POTABLE WATER P	100%	151.43	27.03	4,093.2	137.8
POTABLE WATER S	100%	151.43	27.03	4,093.2	137.8
TOTAL FRESH WATER		788.72	36.69	31,303.6	743.2

A-10

CONDITION: 100% CARGO DEPARTURE

DATE: BY:

TANK	SOUNDING	WEIGHT L. TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	FREE SURFACE FT-TONS
FUEL OIL TANKS					
FUEL OIL STORAGE P	98%	994.24	20.79	20,670.3	2358.8
FUEL OIL STORAGE S	98%	994.24	20.79	20,670.3	2358.8
#3 WING FUEL OIL P	98%	1300.85	33.07	43,019.1	549.6
#3 WING FUEL OIL S	98%	1300.85	33.07	43,019.1	549.6
#6 WING FUEL OIL P	98%	1296.37	31.23	40,485.6	4,453.3
#6 WING FUEL OIL S	98%	1355.43	30.47	41,300.0	6,477.1
FUEL OIL STORAGE OVERFLOW P					
FUEL OIL STORAGE OVERFLOW S					
#3 WING F.O. OVERFLOW P					
#3 WING F.O. OVERFLOW S					
#6 WING F.O. OVERFLOW P					
#6 WING F.O. OVERFLOW S					
TOTAL FUEL OIL		7241.98	28.88	209,164.4	16,747.2
DIESEL OIL TANKS					
DIESEL OIL P	98%	56.13	15.82	888.0	75.2
DIESEL OIL S	98%	56.13	15.82	888.0	75.2
400 GAL. DIESEL OIL GEN. DAY TK.	98%	1.26	12.68	16.0	0.1
TOTAL DIESEL OIL		113.52	15.79	1792.0	150.5
LUBE OIL TANKS					
LUBE OIL STORAGE P	98%	28.43	51.88	1475.0	91.3
LUBE OIL STORAGE DSL. GEN. TK.	98%	4.22	51.87	218.9	0.3
LUBE OIL GRAVITY S	98%	14.80	52.62	778.8	8.0
LUBE OIL SETTLING S	98%	20.21	52.28	1056.6	46.1
MAIN LUBE OIL SUMP	50%	9.50	9.17	87.1	61.3
TOTAL LUBE OIL		77.16	46.87	3616.4	207.0
SANITARY WASTE TANKS					
500 GAL. SEWAGE TK.	–				
BILGE SLOP TK.	–				
MISCELLANEOUS	–				
TOTAL SANITARY WASTE	–				
TOTAL DIESEL OIL AND LUBE OIL					
TOTAL DIESEL OIL		113.52	15.79	1792.0	150.5
TOTAL LUBE OIL		77.16	46.87	3616.4	207.0
TOTAL DIESEL OIL & LUBE OIL		190.68	28.36	5408.4	357.50

A-11

CONDITION: 100% CARGO ARRIVAL

DATE: BY:

TANK	SOUNDING	WEIGHT L. TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	FREE SURFACE FT-TONS
FUEL OIL TANKS					
FUEL OIL STORAGE P	33%	331.41	9.03	2992.6	2358.8
FUEL OIL STORAGE S	33%	331.41	9.03	2992.6	2358.8
#3 WING FUEL OIL P	33%	433.62	16.81	7289.2	549.6
#3 WING FUEL OIL S	33%	433.62	16.81	7289.2	549.6
#6 WING FUEL OIL P	33%	432.12	14.81	6399.7	4453.3
#6 WING FUEL OIL S	33%	451.81	14.28	6451.9	6477.1
FUEL OIL STORAGE OVERFLOW P					
FUEL OIL STORAGE OVERFLOW S					
#3 WING F.O. OVERFLOW P					
#3 WING F.O. OVERFLOW S					
#6 WING F.O. OVERFLOW P					
#6 WING F.O. OVERFLOW S					
TOTAL FUEL OIL		2413.99	13.84	33415.2	16,747.2
DIESEL OIL TANKS					
DIESEL OIL P	10%	5.61	8.01	44.9	75.2
DIESEL OIL S	10%	5.61	8.01	44.9	75.2
400 GAL. DIESEL OIL GEN. DAY TK.	10%	0.13	10.57	1.4	0.1
TOTAL DIESEL OIL		11.35	8.04	91.2	150.5
LUBE OIL TANKS					
LUBE OIL STORAGE P	10%	2.84	47.93	136.1	91.3
LUBE OIL STORAGE DSL. GEN. TK.	10%	0.42	47.93	20.1	0.3
LUBE OIL GRAVITY S	10%	1.48	48.00	71.0	8.0
LUBE OIL SETTLING S	10%	2.02	48.34	97.7	46.1
MAIN LUBE OIL SUMP	50%	9.50	9.17	87.1	61.3
TOTAL LUBE OIL		16.26	25.34	412.0	207.0
SANITARY WASTE TANKS					
500 GAL. SEWAGE TK.					
BILGE SLOP TK.					
MISCELLANEOUS					
TOTAL SANITARY WASTE					
TOTAL DIESEL OIL AND LUBE OIL					
TOTAL DIESEL OIL		11.35	8.04	91.2	150.5
TOTAL LUBE OIL		16.26	25.34	412.0	207.0
TOTAL DIESEL OIL & LUBE OIL		27.61	18.23	503.2	357.50

A-12

SUMMARY OF CONDITION: BY: DATE:

ITEM	DEPARTURE CONDITION					ARRIVAL CONDITION				
	WEIGHT L. TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	LIQUID FREE SURFACE FT-TONS	ACTUAL GRAIN HEELING MOM. FT-TONS	WEIGHT L.TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	LIQUID FREE SURFACE FT-TONS	ACTUAL GRAIN HEELING MOM. FT-TONS
LIGHTSHIP W/CREW & EFFECTS ⚠	16543.27*	38.99	645022.10	-	-	16543.27*	38.99	645022.10	-	-
CONSUMABLES & STORES	100.00	56.00	5600.00	-	-	10.00	56.00	560.00	-	-
CARGO HOLD NO. 1	5313.77	49.57	263412.43	-	12269.66	5313.77	49.57	263412.43	-	12269.66
CARGO HOLD NO. 2	6428.17	41.38	266011.07	-	16213.62	6428.17	41.38	266011.07	-	16213.62
CARGO HOLD NO. 3	4266.34	41.45	176836.24	-	10897.25	4266.34	41.45	176836.24	-	10897.25
CARGO HOLD NO. 4	6495.43	41.34	268549.65	-	10489.68	6495.43	41.34	268549.65	-	10489.68
CARGO HOLD NO. 5 & ENG. RM.	492.42	44.25	21789.77	-	4343.43	492.42	44.25	21789.77	-	4343.43
CARGO HOLD NO. 6	2847.83	46.06	131179.22	-	7136.94	2847.83	46.06	131179.22	-	7136.94
CARGO HOLD NO. 7 & STR. GEAR	1878.33	51.42	96578.52	-	3795.00	1878.33	51.42	96578.52	-	3795.00
SALT WATER BALLAST ⚠	4413.09	5.80	25615.56	41747.0	-	4413.09	5.80	25615.56	41747.00	-
FRESH WATER	788.72	36.69	31,303.6	743.2	-	78.86	31.82	2509.0	743.20	-
FUEL OIL	7241.98	28.88	209,164.4	16747.2	-	2413.99	13.84	33415.2	16747.20	-
DIESEL OIL & LUBE OIL	190.68	28.36	5408.4	357.50	-	27.61	18.23	503.20	357.50	-
SANITARY WASTE TK.	-	-	-	-	-	-	-	-	-	-
CONTAINERS	-	-	-	-		-				
TOTALS	57,000.0	37.66	2146470.96	59594.90	65145.58	51209.11	37.73	1931981.96	59594.90	65145.58

NOTES

1) Free Surface Correction is calculated by dividing Total Liquid Free Surface by Total Displacement.

2) GM (Corrected for Free Surface) must be ≥ Req'd GM (see Sheet 41 .)

*Note: 25.0 L.TONS @ 70.0' A.B. USED FOR CREW & EFFECTS

DEPARTURE DISPLACEMENT	57,000	L.TONS
DEPARTURE KM_T	45.80	FEET
DEPARGURE KG^T = VCG + 0.09'	37.75	FEET
FREE SURFACE CORRECTION =	1.05	FEET
VIRTUAL KG = KG + FREE SURFACE CORR. =	38.80	FEET
DEPARTURE AVA. GM = KM_T – VIRTUAL KG =	7.00	FEET
TOTAL ACTUAL HEELING MOMENT =	65145.58	FT-TONS
ALLOWABLE HEELING MOMENT (FROM TABLE I)	91758.60	FT-TONS

(ALLOWABLE HEELING MOMENT ≥ ACTUAL H.M.)

REQUIRED GM_T @ 38.1 FT. LCF DRAFT = 2.50 FEET

(SEE SHEET 41.)

CONDITION OK!

ARRIVAL DISPLACEMENT	51209.08	L.TONS
ARRIVAL KM_T	46.10	FEET
ARRIVAL KG^T = VCG + 0.09'	37.82	FEET
FREE SURFACE CORRECTION =	1.16	FEET
VIRTUAL KG = KG + FREE SURFACE CORR. =	38.98	FEET
ARRIVAL AVA. GM = KM_T = VIRTUAL KG =	7.12	FEET
TOTAL ACTUAL HEELING MOMENT =	6514558	FT-TONS
ALLOWABLE HEELING MOMENT (FROM TABLE I)	84342	FT-TONS

(ALLOWABLE HEELING MOMENT ≥ ACTUAL H.M.)

REQ'D GM_T @ 35' FT LCF DRAFT = 2.70 FEET

(SEE SHEET 41)

CONDITION OK!

A-14

CONDITION: 100% CARGO GRAIN ARRIVAL

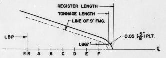
DATE: BY:

TANK	SOUNDING	WEIGHT L.TONS	V.C.G. ABOVE B.L. FEET	VERTICAL MOMENT FT-TONS	FREE SURFACE FT-TONS
BALLAST TANKS & FLUME TANKS					
FOREPEAK S.W. BALLAST TK.					
FWD S.W. BALLAST TK. C.L.					
#1 S.W. BALLAST TK.					
#2 D.B. S.W. BALLAST P	100%	692.13	3.55	2457.1	0
#2 D.B. S.W. BALLAST S	100%	692.13	3.55	2457.1	0
#2 WING S.W. BALLAST P					
#2 WING S.W. BALLAST S					
#2A WING S.W. BALLAST P					
#2A WING S.W. BALLAST S					
#3 D.B. S.W. BALLAST P	100%	495.65	3.57	1769.5	0
#3 D.B. S.W. BALLAST S	100%	495.65	3.57	1769.5	0
#4 D.B. S.W. BALLAST P	100%	676.83	3.57	2416.78	0
#4 D.B. S.W. BALLAST S	100%	676.83	3.57	2416.78	0
#4 WING S.W. BALLAST P					
#4 WING S.W. BALLAST S					
#7 S.W. BALLAST P					
#7 S.W. BALLAST S					
AFT S.W. BALLAST P					
AFT S.W. BALLAST S					
FWD FLUME TANK	42%	289.45	28.20	8162.49	20804.00
AFT FLUME TANK	3 5%	348.00	10.24	3563.52	20,943.00
TOTAL BALLAST		4366.67	5.73	25,011.77	41747.00
FRESH WATER TANKS					
DISTILLED WATER P	10%	24.29	39.02	947.8	233.8
DISTILLED WATER S	10%	24.29	39.02	947.8	233.8
POTABLE WATER P	10%	15.14	20.26	306.7	137.8
POTABLE WATER S	10%	15.14	20.26	306.7	137.8
TOTAL FRESH WATER		78.86	31.82	2509.0	743.2

A-13

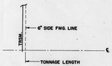
RED. 8X DATE 7-81
MA. NO. H-206 BLDR. NO. 29-01-11
FRAME NO. 1





PLAN AT TONNAGE DECK — FWD.

1/4" = 1'-0"



PLAN AT TONNAGE DECK — AFT

1/4" = 1'-0"

N BODY SECTIONS

NN. PTH	TONNAGE OFFSETS 1	2	3	4	5	6	7
—	—	—	—	—	—	—	—
44	17.85	12.88	9.22	6.39	4.77	3.23	5.40
28	32.10	26.24	21.17	16.98	13.50	10.94	8.54
03	41.74	36.32	31.93	28.01	23.78	20.01	14.46
97	46.67	43.72	40.75	37.79	34.43	30.82	23.28
95	48.60	47.13	46.01	44.77	42.67	40.20	24.35
94	49.00	48.87	48.87	48.52	47.21	45.25	22.49
94	49.00	49.00	49.50	49.46	48.81	47.62	25.45
94	49.00	49.00	49.50	49.46	48.85	47.77	24.57
94	49.00	49.00	49.50	49.46	48.85	47.76	24.57
94	49.00	49.00	49.50	49.46	48.82	47.35	24.10
97	49.00	49.00	49.50	49.46	48.44	45.60	21.53
78	49.00	49.00	49.50	49.12	46.45	41.35	21.48
59	49.00	48.98	48.95	47.92	44.32	36.74	12.58
00	48.65	48.53	48.30	48.14	47.48	46.84	45.37
02	47.07	46.69	46.20	45.83	44.92	43.81	41.32
06	44.29	43.77	43.20	42.77	40.81	38.52	31.21

GENERAL NOTES

PRINCIPAL CHARACTERISTICS

- TONNAGE LENGTH ________ 826' - 4 9/16"
- REGISTER LENGTH ________ 811' - 9 3/16"
- REGISTER DEPTH ________ 55' - 11 9/32"
- REGISTER BREADTH ________ 100' - 2 3/4"
- LENGTH OVERALL (Excluding Crane Overhang) ________ 845' - 4"
- LENGTH OVERALL (Including Crane Overhang) ________ 893' - 4"
- LENGTH BETWEEN PERPENDICULARS ________ 797' - 4"
- DEPTH MOLDED MN. DK. AT SIDE ________ 60' - 0"
- DEPTH MOLDED MN. DK. AT CENTERLINE ________ 61' - 0"
- BREADTH MOLDED ________ 100' - 0"
- SCANTLING DRAFT ________ 38' - 0"
- DESIGN DRAFT ________ 28' - 0"

REV | NO | TITLE | DRAWING NO

REFERENCES

REVISIONS

REV | ZONE | DESCRIPTION

THIS PLAN IS A DUPLICATE OF AVONDALE SHIPYARDS, INC., PLAN NO. C1-698 REV PREVIOUSLY APPROVED BY FRIEDE & GOLDMAN, LTD. AND APPLICABLE REGULATORY BODIES; IT IS IN ACCORDANCE WITH THE SPECIFICATIONS AND IS IDENTICAL THERETO EXCEPT AS FOLLOWS:

A S I DWG NO 29-01-11 REV 0

NO | DESCRIPTION

RESERVATIONS

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP — **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY A. RICHOUX DATE 5-9-80
CHECKED BY J FISHER DATE 5-12-80
APVD [signature] 5/12/80
APVD [signature] 5/12/80 PROJECT MANAGER
APVD NOT REQ.'D

TONNAGE PLAN

SIZE H | A S I DWG NO C7-1000 29-01-11 | REV 0

SCALE

DISTRIBUTION

DEPARTMENT | PRELIM | REVISION

PRODUCTION, PROD PLANNING, MOLD LOFT, ESTIMATING, PROJECT MANAGER, QUALITY CONTROL, COMPUTER APPL, ELECTRICAL, ENGR STANDARDS, FILES & RECORDS, HULL, HULL COMPOSITE, DESIGN, OUTFITTING, STL TAKE OFF, H V A C, MATERIAL REQN, MECHANICAL, MECH COMPOSITE, RESEARCH & DEV, BAYOU BLACK, HARVEY, INDUSTRIAL DIV, SERVICE FOUNDRY, JOINER CONTRACTOR, ADMEASURER, ABS (NY), ABS (NO), ABS (YARD), USCG (NO), USCG (YARD), USPHS, OWNER (HOME), OWNER (YARD), MARAD (WASH), MARAD (YARD)

TOTAL
DATE OF PRINT ISSUE

C7-1000 29-01-11

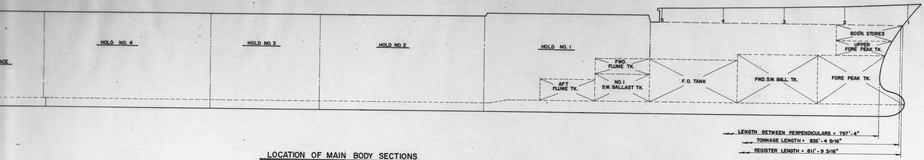
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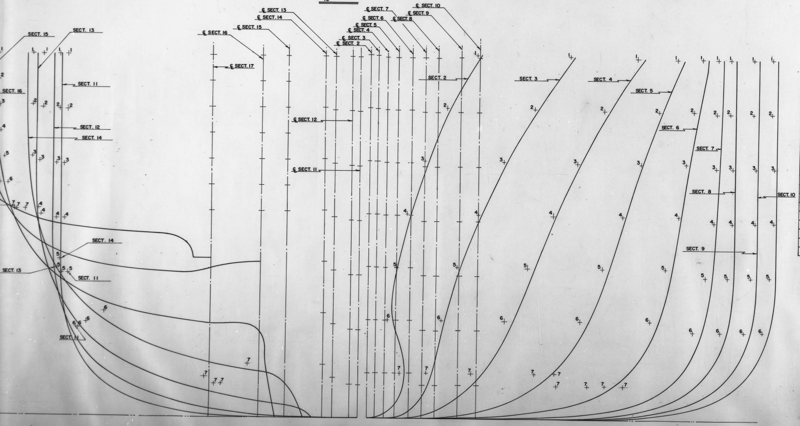
TOTAL
DATE OF PRINT ISSUE

C7-1000 29-01-11



LOCATION OF MAIN BODY SECTIONS

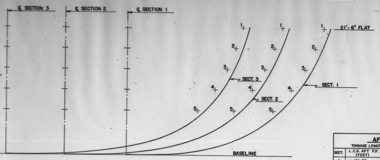
1/16" = 1'-0"



MAIN BODY SECTIONS

MAIN BODY SECTIONS									
SECT.	LOCATION	TONN. DEPTH	TONNAGE OFFSETS						
			1	2	3	4	5	6	7
1	—	—	—	—	—	—	—	—	—
2	38.02' AFT F.P.	53.44	17.85	12.88	9.22	6.39	4.77	3.23	5.40
3	89.67' " "	53.28	32.10	26.24	21.17	16.98	13.50	10.94	8.54
4	141.32' " "	53.03	41.74	36.32	31.93	28.01	23.78	20.01	14.46
5	192.97' " "	52.97	46.67	43.72	40.75	37.79	34.43	30.82	23.28
6	244.61' " "	52.95	48.60	47.13	46.01	44.77	42.67	40.20	24.35
7	296.26' " "	54.94	49.00	48.87	48.87	48.52	47.21	45.25	22.49
8	347.91' " "	54.94	49.00	49.00	49.50	49.46	48.81	47.62	25.45
9	399.56' " "	54.94	49.00	49.00	49.50	49.46	48.85	47.77	24.57
10	451.21' " "	54.94	49.00	49.00	49.50	49.46	48.85	47.76	24.57
11	502.86' " "	54.94	49.00	49.00	49.50	49.46	48.82	47.35	24.10
12	554.51' " "	54.97	49.00	49.00	49.50	49.46	48.44	45.60	21.53
13	606.16' " "	53.78	49.00	49.00	49.50	49.12	46.45	41.35	21.48
14	657.80' " "	51.69	49.00	48.98	48.95	47.92	44.32	36.74	12.58
15	709.45' " "	26.00	48.65	48.53	48.30	48.14	47.48	46.84	45.37
16	761.10' " "	26.02	47.07	46.69	46.20	45.83	44.92	43.81	41.32
17	812.75' " "	26.06	44.29	43.77	43.20	42.77	40.81	38.52	31.21

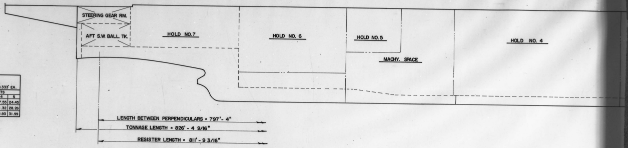
22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14

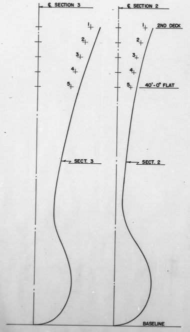


AFT FLUME TANK

$\frac{1}{4}" = 1'-0"$

AFT FLUME TANK							
TONNAGE LENGTH = 36.667', 2 DIVISIONS AT 18.333' EA.							
SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS				
			1	2	3	4	5
1	191.00	13.95	32.91	31.45	29.77	27.55	24.45
2	209.34	13.95	36.39	35.05	33.46	31.32	28.26
3	227.67	13.95	39.54	38.37	36.96	34.93	31.99



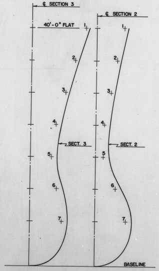


UPPER FORE PEAK TANK

$\frac{1}{4}" = 1'-0"$

UPPER FORE PEAK TANK							
TONNAGE LENGTH = 32.100' 2 DIVISIONS AT 16.050' EA.							
SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS				
			1	2	3	4	5
1	-6.10	0.00	—	—	—	—	—
2	11.95	10.00	4.43	3.76	3.06	2.65	2.18
3	30.00	10.00	8.75	7.83	7.02	6.27	5.58

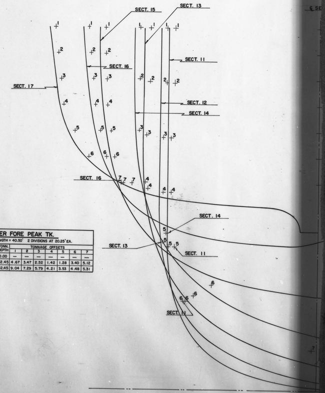
...LLAST TANK						
...', 2 DIVISIONS AT 36.667' EA.						
TONNAGE OFFSETS						
...	2	3	4	5	6	7
...74	48.63	48.41	48.38	47.85	47.15	45.95
...85	47.55	47.17	46.94	46.22	45.28	43.56
...28	45.82	45.29	44.98	44.02	42.51	39.79



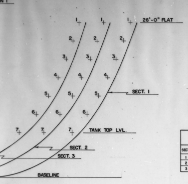
LOWER FORE PEAK TANK

$\frac{1}{4}" = 1'-0"$

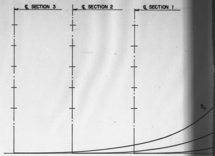
LOWER FORE PEAK TK.									
TONNAGE LENGTH = 40.50' 2 DIVISIONS AT 20.25' EA.									
SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS						
			1	2	3	4	5	6	7
1	1.50	0.00	—	—	—	—	—	—	—
2	21.75	32.45	4.67	3.47	2.52	1.42	1.28	3.40	5.12
3	42.00	32.45	9.04	7.29	5.79	4.21	3.53	4.48	5.31



22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14

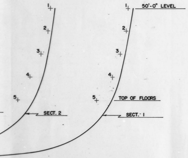


NO. 1 S.W. BALLAST TANK									
TONNAGE LENGTH = 36.667', 2 DIVISIONS AT 18.333' EACH									
SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS						
			1	2	3	4	5	6	7
1	154.33	18.45	26.97	25.81	24.61	23.20	21.69	19.78	17.29
2	172.67	18.45	30.78	29.68	28.52	27.08	25.57	23.46	20.80
3	191.00	18.45	34.43	33.41	32.30	30.90	29.31	27.25	24.45

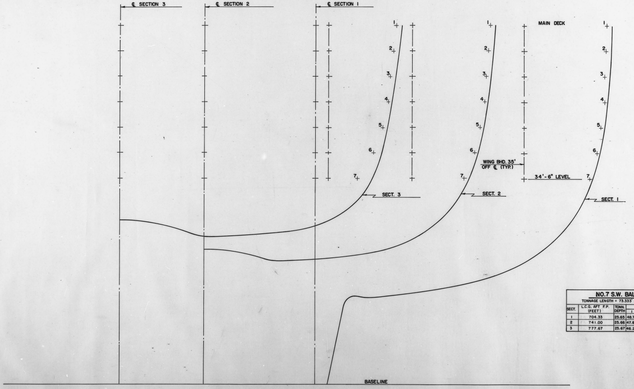


AFT FLUME TANK

$\frac{1}{4}$" = 1'-0"



AFT S.W. BALLAST TANK							
TONNAGE LENGTH = 32.500', 2 DIVISIONS AT 16.250' EA.							
SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS				
			1	2	3	4	5
1	777.67	15.45	45.08	44.77	43.79	42.44	39.83
2	793.91	15.45	44.08	43.69	42.53	40.74	38.67
3	810.17	15.45	43.08	42.62	41.10	38.52	33.28



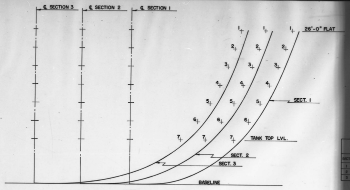
NO.7 S.W. BALLAST TANK									
TONNAGE LENGTH = 73.333', 2 DIVISIONS AT 36.667' EA.									
SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS						
			1	2	3	4	5	6	7
1	704.33	25.65	48.74	48.63	48.41	48.38	47.85	47.15	45.95
2	741.00	25.66	47.85	47.55	47.17	46.94	46.22	45.28	43.56
3	777.67	25.67	46.28	45.82	45.29	44.98	44.02	42.51	39.79

NO. 7 S.W. BALLAST TANK

$\frac{1}{4}$" = 1'-0"

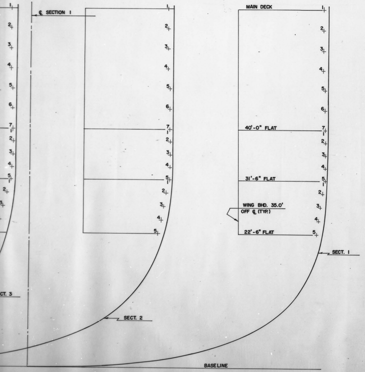


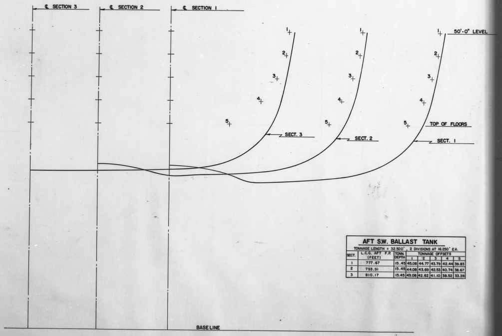
UPPER



NO. 1 S.W. BALLAST TANK

$\frac{1}{4}$" = 1'-0"





MACHINERY SPACES

UPTAKE SPACES (P & S)

TONNAGE LENGTH = 36.667, 2 DIVISIONS AT 18.333' EACH

SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS 1	2	3	4	5	6	7
1	557.67	20.19	49.00	49.00	49.00	49.00	49.33	49.33	49.40
2	576.00	20.19	49.00	49.00	49.00	49.00	49.33	49.33	49.40
3	594.33	20.19	49.00	49.00	49.00	49.00	49.33	49.33	49.40

31'-6" FLAT

ENGINEERS' STORE ROOMS (P/S)

TONNAGE LENGTH = 36.667', 2 DIVISIONS AT 18.333'

SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS 1	2	3	4	5
1	557.67	8.50	49.40	49.50	49.50	49.46	49.46
2	576.00	8.50	49.40	49.50	49.50	49.46	49.40
3	594.33	8.50	49.40	49.50	49.48	49.26	49.15

22'-6" FLAT

ENGRS. MACHINE SHOP (P) AIR COMP. RM. (S)

TONNAGE LENGTH = 36.667', 2 DIVISIONS AT 18.333' EACH

SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS 1	2	3	4	5
1	557.67	9.00	49.46	49.07	48.71	48.45	48.10
2	576.00	9.00	49.40	48.88	48.40	48.02	47.46
3	594.33	9.00	49.15	48.49	47.82	47.21	46.48

AFT S.W. BALLAST TANK

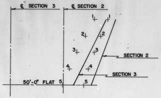
TONNAGE LENGTH = 32.500', 2 DIVISIONS AT 16.250' EA.

SECT.	L.C.G. AFT F.P. (FEET)	TONN. DEPTH	TONNAGE OFFSETS 1	2	3	4	5
1	777.67	15.45	45.08	44.77	43.79	42.44	39.83
2	793.91	15.45	44.08	43.69	42.53	40.74	38.67
3	810.17	15.45	43.08	42.62	41.10	38.52	33.28

AFT S.W. BALLAST TK.

$\frac{1}{4}$" = 1'-0"

44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36

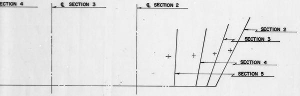


BOSN'S. STORES - 2nd DK. - STEM - FR. 15

1/4" = 1'-0"

BOSN'S STORES - 2nd DK. TONNAGE LENGTH = 39.67', 2 DIVISIONS AT 19.84'					
SECT.	L.C.G. AFT F.P. (FEET)	UPPER TONN. HT.	LOWER TONN. HT.	TONN. DEPTH	VERTICAL DIVISION
1	-13.67	61.00'	–	–	0.00
2	6.17	61.00'	50.00'	11.000'	2.750'
3	26.00	60.849'	50.00'	10.849'	2.759'

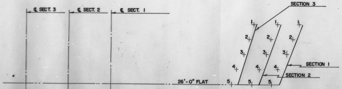
TONNAGE OFFSETS					
SECT.	1	2	3	4	5
1	0.00	0.00	0.00	0.00	0.00
2	7.39	6.20	5.12	4.19	3.39
3	13.99	12.45	11.08	9.85	8.75



FORECASTLE

1/4" = 1'-0"

FORECASTLE TONNAGE LENGTH = 165.532', 4 DIVISIONS 41.383' EACH					
SECT.	L.C.G. AFT F.P. (FEET)	UPPER TONN. HT.	LOWER TONN. HT.	TONN. DEPTH	OFFSET
1	-19.12	–	–	0.00	0.00
2	22.27	72.769'	60.991	11.778	15.62
3	63.65	71.369	60.878	10.491	27.26
4	105.03	70.509	60.766	9.743	35.93
5	146.42	70.175	60.679	9.496	42.55

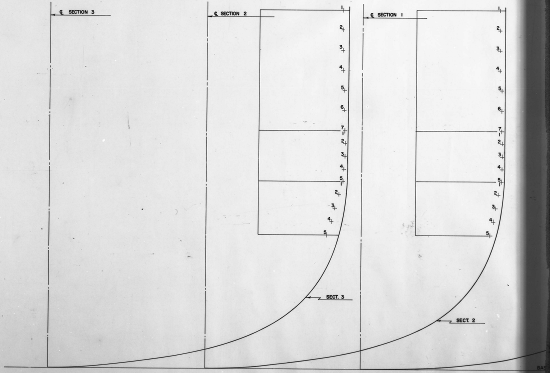


FWD FLUME TANK

1/4" = 1'-0"

FWD FLUME TANK – FR. 52-57 TONNAGE LENGTH = 36.667', 2 DIVISIONS AT 18.333' EACH					
SECT.	L.C.G. AFT F.P. (FEET)	UPPER TONN. HT.	LOWER TONN. HT.	TONN. DEPTH	VERTICAL DIVISION
1	154.33	36.00'	26.00'	10.00'	2.5
2	172.67	36.00'	26.00'	10.00'	2.5
3	191.00	36.00'	26.00'	10.00'	2.5

TONNAGE OFFSETS					
SECT.	1	2	3	4	5
1	31.53	30.49	29.52	28.01	26.97
2	34.98	33.88	33.18	32.05	30.78
3	38.17	37.37	36.56	35.30	34.43



MACHINERY SPACES

1/4" = 1'-0"

44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36

RED. 8X DATE 7-81
MA. NO. H-206 BLDR. NO. 29-01-11
FRAME NO. 6

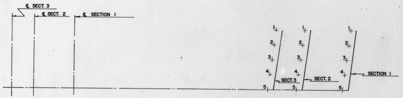
51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43



FORWARD BALLAST TANK CL.									
TONNAGE LENGTH = 53.67', 2 DIVISIONS AT 26.84' EACH									
SECT.	L.C.G. FROM F.P. (FT.)	TONN. DEPTH	TONNAGE OFFSETS						
			1	2	3	4	5	6	7
1	42.00	32.50	9.04	7.30	5.82	4.53	3.90	4.73	5.64
2	68.84	32.50	15.00	12.74	10.70	9.03	7.90	7.38	6.95
3	95.67	32.50	20.97	18.43	16.17	13.87	12.51	11.07	9.55

LAST TANK CL.

1' - 0"

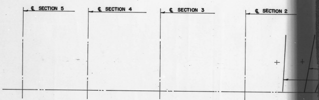


AFT MACHINERY SPACE (137 - 148)

$\frac{1}{4}" = 1' - 0"$

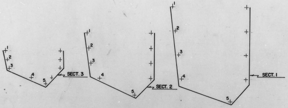
AFT MACHINERY SPACE (121 - 132)					
TONNAGE LENGTH = 35.084', 2 DIVISIONS AT 17.542' EA.					
SECT.	L.C.G. AFT F.P. (FEET)	UPPER TONN. HT.	LOWER TONN. HT.	TONN. DEPTH	VERTICAL DIVISION
1	777.67	60.068'	50.0'	10.068'	2.772'
2	795.21	60.090'	50.0'	10.090'	2.773'
3	812.75	60.118'	50.0'	10.118'	2.707'

TONNAGE OFFSETS					
SECT.	1	2	3	4	5
1	46.29	46.02	45.72	45.41	45.08
2	45.34	45.03	44.71	44.36	44.01
3	44.31	43.96	43.62	43.29	42.93



FORECASTLE

$\frac{1}{4}" = 1' - 0"$

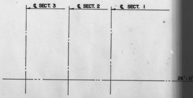


CRANEWAY EXTENSION

$\frac{1}{4}" = 1' - 0"$

CRANEWAY EXTENSION					
TONNAGE LENGTH = 48.00', 2 DIVISIONS AT 24.00' EA.					
SECT.	L.C.G. AFT F.P. (FEET)	UPPER TONN. HT.	LOWER TONN. HT.	TONN. DEPTH	VERTICAL DIVISION
1	812.83	60.119'	45.45'	13.177'	3.29'
2	836.83	60.155'	49.667'	8.347'	2.086'
3	860.83	60.197'	54.372'	3.843'	0.960'

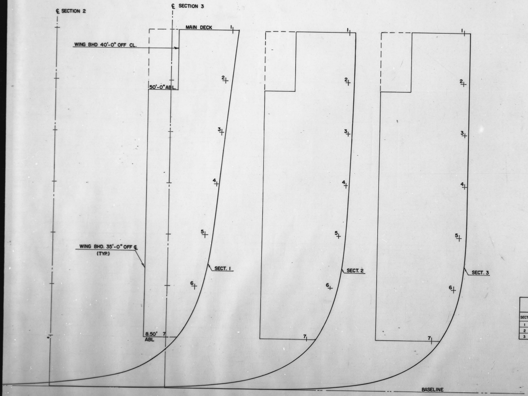
TONNAGE OFFSETS					
SECT.	1	2	3	4	5
1	12.35	11.85	11.30	10.75	0.0
2	10.75	10.40	10.05	8.60	0.0
3	9.15	8.87	8.54	3.50	0.0



FWD FLUME TANK

$\frac{1}{4}" = 1' - 0"$

51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43



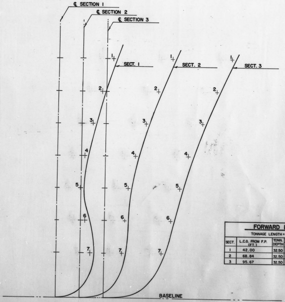
NO. 2 WING BALLAST TANK P/S

$\frac{1}{4}" = 1'-0"$

NO. 2 WING BALLAST TANK P/S

TONNAGE LENGTH = 73.33', 2 DIVISIONS AT 36.67' EACH

SECT	L.C.G. FROM F.P. (FT.)	TONN. DEPTH	TONNAGE OFFSETS						
			1	2	3	4	5	6	7
1	264.33	51.63	8.93	7.89	12.40	11.66	9.92	8.38	3.69
2	301.00	51.63	8.93	8.87	14.03	13.84	12.74	11.51	7.73
3	337.67	51.63	8.93	8.93	14.29	14.44	13.74	12.91	9.43



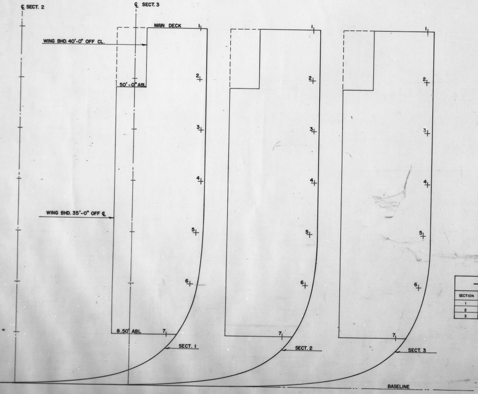
FWD BALLAST TANK CL.

$\frac{1}{4}" = 1'-0"$

FORWARD BALLAST TANK CL.

TONNAGE LENGTH = 53.67', 2 DIVISIONS AT 26.84' EAC[illegible]

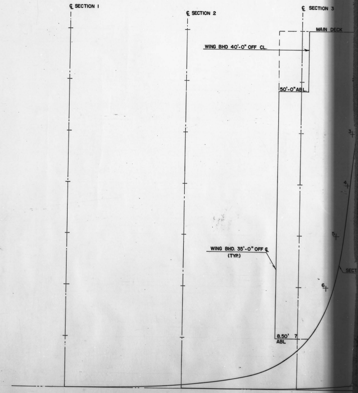
SECT.	L.C.G. FROM F.P. (FT.)	TONN. DEPTH	TONNAGE OFFSETS				
			1	2	3	4	5
1	42.00	32.50	9.04	7.30	5.82	4.53	3.90
2	68.84	32.50	15.00	12.74	10.70	9.03	7.90
3	95.67	32.50	20.97	18.43	16.17	13.87	12.51



NO. 2A WING BALLAST TANK P/S

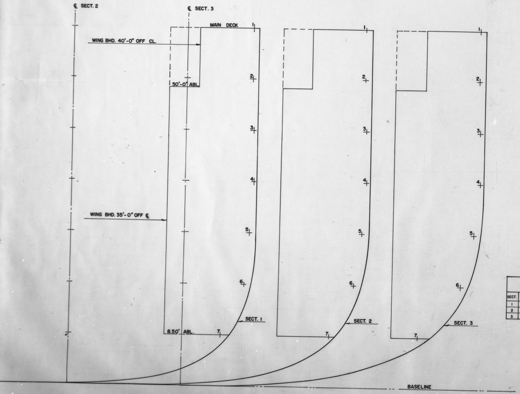
$\frac{1}{4}$" = 1'-0"

NO. 2A WING BALLAST TANK P/S									
TONNAGE LENGTH= 73.33', 2 DIVISIONS AT 36.67' EACH									
SECTION	L.C.G. FROM F.P. (FT.)	TONN. DEPTH	TONNAGE OFFSETS						
			1	2	3	4	5	6	7
1	337.67	51.63	8.93	8.93	14.29	14.44	13.74	12.91	9.13
2	374.33	51.63	8.93	8.93	14.29	14.44	13.81	13.22	9.55
3	411.00	51.63	8.93	8.93	14.29	14.44	13.81	13.22	9.55



NO. 2 WING BALLAST TA

$\frac{1}{4}$" = 1'-0"



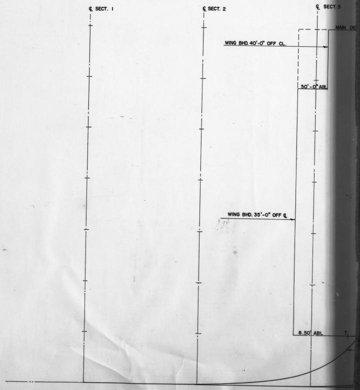
NO. 4 WING BALLAST TANK P/S

1/4" = 1'-0"

NO. 4 WING BALLAST TANK P/S

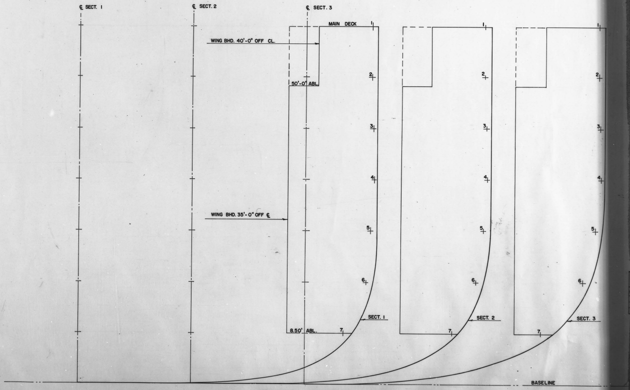
TONNAGE LENGTH = 73.33', 2 DIVISIONS AT 36.67' EACH

SECT.	L.C.G. FROM F.P. (FT.)	TONN. DEPTH	TONNAGE OFFSETS 1	2	3	4	5	6	7
1	484.33	51.63	8.93	8.93	14.29	14.44	13.81	13.11	9.32
2	521.00	51.63	8.93	8.93	14.29	14.44	13.78	12.65	8.64
3	557.67	51.63	8.93	8.93	14.29	14.44	13.55	11.46	4.40



NO. 2A WING BALLAST TANK

1/4" = 1'-0"



NO. 4 WING BALLAST TANK P/S

$\frac{1}{4}$" = 1'-0"

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 1

A S I DWG NO 29-01-16 REV 2

RESERVATIONS

NO.	DESCRIPTION

M A HULL NO	A S I HULL NO	NAME OF VESSEL	M A DESIGN
337	2308	EDWARD RUTLEDGE	C9-S-81f
336	2307	BENJAMIN HARRISON	C9-S-81f

Form A-HTB-W (12-77)

A S I JOB NO **C7-1000**

WATERMAN STEAMSHIP CORP **LASH**

AVONDALE SHIPYARDS, INC
P O BOX 50280 NEW ORLEANS, LA 70150

DRAWN BY J FISHER DATE 9-10-80
CHECKED BY DFN DATE 4/14/80
APVD [signature] 4/14/80
APVD J.J. [signature] PROJECT MANAGER 4/14/80
APVD NOT REQ'D VP/CHIEF ENGINEER

LOADING MANUAL

SIZE A — A S I DRAWING NO C7-1000 29-01-16 — REV 2
SCALE — SH NO 1 OF 176

PRINT DISTRIBUTION

DEPT.	PREL	REVISIONS 0	REVISIONS 1
MOLD LOFT			
PRODUCTION			–
PROD. PLANNING			–
ENGINEERING FILE		1	1
ESTIMATING			
MATERIAL REQN.			
PROJECT MANAGER		1	1
QUALITY CONTROL		1	1
STEEL TAKE OFF			
DESIGN SECTION		1	1
ELECTRICAL SECTION			
H.V.A.C. SECTION			
HULL SECTION			
MECH. COMPOSITE			
MECHANICAL DESIGN			
MECHANICAL DEV.			
OUTFITTING SECTION			
HULL COMPOSITE			
A.B.S.-(N.O.)			
A.B.S.-(N.Y.)		4	8
A.B.S.-INSP.			
ADMEASURER			
U.S.C.G.			–
U.S.C.G.-INSP.			
U.S.P.H.S.			
JOINER CONTR.			
RAYTHEON		1	1
SIG SOLARES		1	1
F & G		3	3
F & G (Y)		1	1
MARAD (YARD)		1	1
MARAD (WASH)		2	2
WATERMAN			4
TOTAL		17	25
DATE OF PRINT ISSUE		4/14/80	9/17/80

Form ED-STB-2

INDEX

DWG NO C7-1000 29-01-16

INDEX & PRINT DISTRIBUTION

SHEET NO. 2

REFERENCES

REV.	NO.	TITLE	DRAWING NO.
	1	Longitudinal Strength Calculations	29-01-16
	2	Trim and Stability Booklet	29-01-09
	3	Technical Manual for Loadmax Digital Loading Computer	
	4–36		

Form ED-SMB-5

DWG NO. C7-1000 29-01-16

REFERENCES

SHEET NO. 3

REVISIONS

REV.	SHT NO	ITEM NO	DESCRIPTION	BY	A.S.I. APRVD DATE	OWNER APRVD DATE
1		1	Booklet revised to suit Lightship Data obtained from stability test of 5-23-80, revised to suit removal of container crane and removal of container guides in holds 1A and 1B that interfere with lighter stowage.	JTF 9-15-80	9/16/80	
2		1	Revised unit description on pages 10-169 per Friede and Goldman approval letter serial no. L-772/3117. Dated 10-1-1980	JTF 10-17-80	[initials]	

Form ED-SMB-4

DWG NO. C7-1000 29-01-16

REVISIONS

SHEET NO. 4

GENERAL NOTES

1. This booklet is designed to allow the vessel's operating personnel to determine if any actual or proposed load condition is within the allowable limits with regard to longitudinal strength.
2. With a known load and load distribution, values of shear force and Longitudinal Bending Moment can be determined at seven different locations along the length of the hull. This manual is intended to be within the allowable degree of error for conditions between 4 feet trim by the bow to 16 feet trim by the stern.
3. All values of weight, buoyancy, shear and moment are 1/1000 th. their actual value.
4. Values for Allowable Shear Force and Bending Moment are located on Page 8 of this booklet and a table in the applications section of reference 3.
5. After an acceptable loading distribution has been determined by the use of this booklet, check the condition for proper stability by the use of the "Trim and Stability Booklet", ASI Dwg. 29-01-09.

SYMBOLS USED

- B_i = Summation of Buoyant Force from bow to a particular frame i (L. Tons)
- BM_i = Bending Moment at Frame i (Ft x L. Tons)
- MB_i = Buoyant Moment about Forward Perpendicular to Frame i (Ft x L. Tons)
- MW_i = Weight Moment About Forward Perpendicular to Frame i (Ft x L. Tons)
- MWT = Total Weight Moment About the Forward Perpendicular (Ft x L. Tons)
- SF_i = Shear Force at Frame i (L. Tons)
- TRIM = Difference in Drafts Between the Forward and After Perpendiculars + = Aft/- = Fwd (ft)
- Δ TRIM = The fraction of trim i.e. trim = 9.67, ΔTrim = 0.67 (ft)
- W_i = Summation of Weights from Bow to a particular Frame i (L. Tons)
- WT = Total Displacement or Summation of all weight items.

INSTRUCTIONS FOR USE OF THE LOADING MANUAL

1. With known or anticipated condition of loading, enter the weight factor ($\frac{\text{weight of tank/load item}}{1000}$) in Column (A) of "longitudinal strength form".
2. Multiply the weight factor by their LCG and enter the values in Column (B) titled "Wt Factor x LCG". This column is the weight momnt of the item or tank.
3. For each of the calculational frames, sum Column (A) and (B) and enter these values in the blocks W_i and MW_i.
4. Sum Columns (A) and (B) for load items 68 thru 75 to arrive at the total displacement and total moment due to weight.
5. Divide the Total Moment Due to Weight by the Total Displacement to get the Longitudinal Center of Gravity (LCG). With this value and Total Displacement, enter the appropriate table on Page 9 and using the "Trim Calculation Procedure" on "Longitudinal Strength Form", calculate Trim and Δ Trim.
6. Buoyancy and moment due to buoyancy values by frame for each one foot increment of trim are listed on Page 10 to 169. At the particular frame in question, read these values against appropriate displacement and apply the necessary Δ Trim correction. For greater accuracy, interpolate at the correct displacement, the "Change Buoyancy/Ft Trim" and the "Change Buoyancy Moment/Ft Trim".
7. Calculate the shearing force which will be $SF_i = W_i - B_i$.
8. Calculate the Bending Moment which will be Moment Due to Buoyancy plus the Shear Force times the LCG of the Particular Frame minus the Moment Due to Weight. $BM_i = MB_i + (SF_i)(LCG) - MW_i$
9. Repeat steps 6 thru 8 for all the remaining frames.
10. Since the values of weight, buoyancy and moment are 1/1000 of their actual values, multiply by one thousand (1000) to get the correct value.
11. Compare the values calculated above with the maximum allowable values on Page 8. If any of the calculated values exceed the maximum allowable values, the tankage or load item must be redistributed and the calculation repeated until an acceptable value is obtained.

ALLOWABLE STILL WATER BENDING MOMENTS AND SHEAR FORCE

FRAME	DISTANCE FROM F.P. (FEET)	AT SEA CONDITION B.M. (FT - L. Tons)	AT SEA CONDITION S.F L. Tons	IN PORT CONDITONS B.M. (FT. - L. Tons)	IN PORT CONDITONS S.F. (L.Tons)
52	154.33	299,784	2,876	683,741	5,601
61	264.33	640,141	11,821	1,460,359	14,189
70	374.33	645,834	13,158	1,474,462	14,835
76	447.67	632,218	14,198	1,442,284	16,042
85	557.67	574,125	15,008	1,309,451	17,733
95	631.00	377,356	7,027	860,665	9,752
101	704.33	213,439	6,306	486,806	7,773

Per: A.B.S. letter of May 31, 1979
A.B.S. letter of June 6, 1979

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 2

TABLE OF LONGITUDINAL CENTER OF BUOYANCY PER FOOT OF TRIM

DISPL/1000 L. TONS	TRIM BY THE STERN (FEET)																
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
10.000	383.229	387.320	391.375	395.508	399.685	403.911	408.141	412.394	416.681	421.008	425.342	429.685	434.035	438.361	442.717	447.069	451.371
15.000	388.388	391.485	394.597	397.772	400.975	404.200	407.492	410.821	414.156	417.542	420.963	424.422	427.916	431.443	435.002	438.562	442.154
20.000	393.589	396.164	398.772	401.414	404.095	406.791	409.550	415.350	415.173	418.035	420.962	423.919	426.898	426.942	433.024	436.129	439.272
25.000	398.588	400.915	403.257	405.640	408.032	410.471	412.922	415.411	417.939	420.486	423.093	425.726	428.403	431.130	433.918	436.774	439.687
30.000	403.351	405.554	407.761	409.994	412.253	414.551	416.863	419.209	421.604	424.041	426.529	429.074	431.645	434.252	436.909	439.593	442.310
35.000	407.975	410.110	412.275	414.491	416.745	419.020	421.317	423.641	425.995	428.367	430.764	433.181	435.613	438.055	440.512	442.976	445.451
40.000	412.761	414.885	417.038	419.205	421.394	423.587	425.808	428.027	430.254	432.485	434.719	436.959	439.203	441.448	443.696	445.954	448.208
45.000	417.350	419.404	421.463	423.526	425.591	427.660	429.738	431.803	433.877	435.949	438.023	440.096	442.170	444.241	446.311	448.382	450.452
50.000	421.366	423.302	425.241	427.178	429.121	431.055	432.994	434.921	436.862	438.794	440.719	442.654	444.583	446.501	448.430	450.352	452.253
55.00	424.724	426.552	428.377	430.201	432.023	433.842	435.661	437.477	439.290	441.102	442.909	444.717	446.521	448.323	450.120	451.918	453.713
60.000	427.516	429.241	430.970	432.691	434.417	436.135	437852	439.565	441.276	442.984	444.686	446.833	448.087	449.780	451.472	453.160	454.834

DISPL/1000 L. TONS	TRIM BY THE BOW (FFET)				
	0	-1	-2	-3	-4
10.000	383.229	379.230	375.241	371.303	367.464
15.000	388.388	385.344	382.316	379.331	376.387
20.000	393.589	391.030	388.513	386.015	383.524
25.000	398.588	396.282	394.004	391.734	389.484
30.000	403.352	401.185	399.036	396.901	394.769
35.000	407.975	405.870	403.792	401.741	399.688
40.000	412.761	410.647	408.554	406.482	404.498
45.000	417.350	415.296	413.262	411.235	409.213
50.000	421.366	419.431	417.495	415.558	413.622
55.000	424.724	422.894	421.068	419.234	417.418
60.000	427.517	425.783	424.046	422.310	420.567

Note: In order for the vessel to be in equilbrium the longitudinal center of gravity (LCG) and buoyancy (LCB) must be at an equal distance AFT of the forward perpendicular. Therefore, in the use of these trim tables enter at the nearest tabulated displacement and find at which two trims the known LCG lies between. A process of double interpocation will then give the correct trim.

Example: DISPL = 36,762 L. Tons, LCG = 425.199 FT

DISPL/1000 L. TONS	TRIM BR THE STERN	
	7	8
35.000	423.641	425.995
36.762	425.187	427.496
40.000	428.027	430.254

1. $\left[\frac{36.762 - 35.000}{5.000} (428.027 - 423.641)\right] + 423.641 = 425.187$
2. $\left[\frac{36.762 - 35.000}{5.000} (430.254 - 425.995)\right] + 425.995 = 427.486$
3. $\Delta \text{Trim} = \frac{425.199 - 425.187}{427.496 - 425.187} = 0.005$
4. Trim = 0.005 + 7 = 7.005 AFT

DATE 10/10/80 LOADING MANUAL CALCULATIONS
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 61

TRIM = 0.0 TRIM = 1.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.737	0.071	-0.036	65.000	6.707	-3.016
15.000	1.092	0.066	-0.037	98.533	6.715	-3.345
20.000	1.419	0.063	-0.036	132.108	6.752	-3.667
25.000	1.735	0.064	-0.039	165.868	6.820	-4.054
30.000	2.053	0.065	-0.043	199.966	6.914	-4.426
35.000	2.377	0.066	-0.047	234.534	6.973	-4.830
40.000	2.706	0.067	-0.052	269.398	7.079	-5.284
45.000	3.044	0.070	-0.056	304.795	7.289	-5.675
50.000	3.394	0.073	-0.060	341.242	7.544	-6.014
55.000	3.760	0.077	-0.064	378.963	7.631	-6.340
60.000	4.142	0.080	-0.068	418.116	8.135	-6.668

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REV. NO. 61

TRIM = 0.0 TRIM = 1.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.244	0.223	-0.080	391.417	39.507	-12.315
15.000	3.360	0.217	-0.086	588.955	39.153	-13.780
20.000	4.443	0.212	-0.091	784.719	38.622	-15.207
25.000	5.502	0.209	-0.100	977.830	37.948	-16.744
30.000	6.546	0.207	-0.107	1167.568	37.309	-17.968
35.000	7.581	0.204	-0.116	1354.112	36.468	-19.234
40.000	8.601	0.203	-0.125	1536.454	35.903	-20.659
45.000	9.614	0.204	-0.133	1715.970	35.878	-21.674
50.000	10.635	0.207	-0.138	1895.360	36.069	-22.375
55.000	11.671	0.211	-0.144	2075.705	36.393	-22.970
60.000	12.726	0.215	-0.149	2257.669	36.783	-23.525

DATE 10/10/80 LOADING MANUAL CALCULATIONS
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DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 61

TRIM = 0.0 TRIM = 1.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.643	0.439	-0.107	1161.418	108.702	-20.479
15.000	6.840	0.424	-0.117	1704.929	105.574	-23.110
20.000	8.960	0.411	-0.126	2232.800	102.422	-25.942
25.000	11.015	0.400	-0.139	2744.910	99.086	-29.113
30.000	13.014	0.390	-0.151	3240.341	95.979	-31.445
35.000	14.966	0.379	-0.163	3720.235	92.501	-33.859
40.000	16.862	0.371	-0.177	4182.738	89.855	-36.645
45.000	18.718	0.369	-0.186	4632.012	88.645	-38.363
50.000	20.564	0.370	-0.193	5075.238	88.006	-39.280
55.000	22.412	0.371	-0.198	5515.270	87.698	-39.915
60.000	24.269	0.374	-0.203	5953.758	87.532	-40.430

DATE 10/10/80 LOADING MANUAL CALCULATIONS
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TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 61

TRIM = 0.0 TRIM = 1.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.322	0.588	-0.103	1851.215	169.836	-18.703
15.000	9.262	0.566	-0.114	2700.396	164.121	-22.027
20.000	12.094	0.548	-0.126	3521.002	158.519	-25.906
25.000	14.832	0.530	-0.143	4313.594	152.664	-30.403
30.000	17.483	0.515	-0.156	5076.914	147.204	-33.632
35.000	20.058	0.498	-0.171	5812.934	141.289	-36.998
40.000	22.547	0.485	-0.187	6519.379	136.739	-40.931
45.000	24.974	0.481	-0.198	7203.070	134.424	-43.232
50.000	27.377	0.479	-0.205	7875.195	133.001	-44.303
55.000	29.772	0.479	-0.210	8540.199	132.083	-44.953
60.000	32.169	0.481	-0.215	9200.617	131.379	-45.400

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TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 61

TRIM = 0.0 TRIM = 1.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.697	0.807	-0.064	3041.079	279.678	1.182
15.000	12.731	0.777	-0.076	4439.469	270.112	-2.590
20.000	16.618	0.751	-0.091	5790.031	260.596	-7.927
25.000	20.372	0.725	-0.112	7093.016	250.549	-14.592
30.000	23.997	0.702	-0.129	8345.758	241.061	-19.346
35.000	27.505	0.676	-0.146	9551.066	230.776	-24.422
40.000	30.885	0.656	-0.167	10704.945	222.748	-30.450
45.000	34.167	0.648	-0.180	11818.684	218.407	-33.822
50.000	37.406	0.643	-0.188	12910.723	215.546	-35.174
55.000	40.622	0.641	-0.193	13988.453	213.511	-35.847
60.000	43.829	0.641	-0.198	15056.008	211.819	-36.183

DATE 10/10/80 LOADING MANUAL CALCULATIONS
JOB NO. C7-1000
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TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 61

TRIM = 0.0 TRIM = 1.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.686	0.931	-0.025	3624.118	353.421	24.572
15.000	14.342	0.904	-0.034	5391.223	345.129	22.720
20.000	18.862	0.876	-0.048	7116.867	335.228	17.646
25.000	23.244	0.848	-0.071	8793.004	323.805	10.233
30.000	27.486	0.822	-0.088	10412.031	312.572	4.907
35.000	31.596	0.792	-0.107	11974.887	299.865	-1.068
40.000	35.557	0.769	-0.130	13474.215	289.757	-8.441
45.000	39.403	0.758	-0.145	14923.000	284.210	-12.478
50.000	43.196	0.752	-0.152	16344.047	280.428	-13.963
55.000	46.958	0.749	-0.158	17746.191	277.629	-14.592
60.000	50.704	0.747	-0.162	19134.336	275.203	-14.816

DATE 10/10/80 LOADING MANUAL CALCULATIONS
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REV. NO. 61

TRIM = 0.0 TRIM = 1.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.983	0.997	-0.002	3819.541	396.814	39.330
15.000	14.969	0.995	0.004	5803.609	405.792	47.450
20.000	19.945	0.980	-0.001	7832.566	404.490	49.401
25.000	24.847	0.957	-0.019	9855.016	396.052	44.391
30.000	29.631	0.932	-0.035	11835.281	385.707	40.367
35.000	34.290	0.901	-0.054	13763.816	372.228	34.684
40.000	38.794	0.876	-0.078	15624.957	361.120	26.719
45.000	43.175	0.865	-0.092	17430.559	355.181	22.560
50.000	47.499	0.858	-0.099	19206.461	351.114	21.360
55.000	51.791	0.855	-0.104	20962.031	348.029	21.136
60.000	56.064	0.852	-0.108	22702.176	345.251	21.312

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 3

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 61

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 17

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0

FR 139

TRIM = 1.00

FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.003	1.000	-0.001	3833.440	398.476	40.144
15.000	15.000	1.000	0.005	5825.816	409.192	48.420
20.000	20.000	1.000	0.006	7871.777	418.823	53.877
25.000	25.003	1.000	-0.001	9965.895	427.091	57.790
30.000	30.002	1.000	-0.000	12101.352	435.797	65.667
35.000	35.003	1.000	0.000	14280.336	446.432	74.730
40.000	40.005	0.999	-0.000	16512.496	453.817	84.977
45.000	45.002	1.000	-0.000	18781.582	457.683	92.432
50.000	50.004	1.000	-0.000	21070.600	458.224	96.800
55.000	55.003	1.000	0.000	23361.117	458.154	100.512
60.000	60.002	1.000	0.000	25651.887	457.449	103.856

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 18

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00

FR 52

TRIM = 2.00

FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.701	0.071	-0.036	61.985	6.641	-3.000
15.000	1.055	0.066	-0.037	95.189	6.650	-3.372
20.000	1.383	0.063	-0.037	128.441	6.675	-3.704
25.000	1.696	0.063	-0.039	161.813	6.745	-4.042
30.000	2.010	0.064	-0.043	195.539	6.833	-4.415
35.000	2.330	0.065	-0.047	229.704	6.882	-4.831
40.000	2.654	0.067	-0.052	264.114	7.001	-5.266
45.000	2.987	0.069	-0.056	299.120	7.222	-5.640
50.000	3.334	0.072	-0.060	335.228	7.479	-5.972
55.000	3.696	0.076	-0.063	372.623	7.765	-6.297
60.000	4.074	0.079	-0.067	411.449	8.069	-6.626

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 19

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00

FR 61

TRIM = 2.00

FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.163	0.222	-0.080	379.103	39.214	-12.304
15.000	3.274	0.216	-0.088	575.175	38.867	-13.993
20.000	4.351	0.210	-0.093	769.511	38.315	-15.489
25.000	5.402	0.207	-0.100	961.086	37.703	-16.781
30.000	6.439	0.205	-0.108	1149.600	37.056	-18.034
35.000	7.465	0.202	-0.116	1334.878	36.183	-19.386
40.000	8.476	0.201	-0.125	1515.795	35.700	-20.725
45.000	9.481	0.203	-0.132	1694.296	35.738	-21.674
50.000	10.497	0.206	-0.138	1872.985	35.950	-22.343
55.000	11.527	0.210	-0.143	2052.735	36.282	-22.942
60.000	12.577	0.214	-0.148	2234.144	36.675	-23.516

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 20

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00

FR 70

TRIM = 2.00

FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.536	0.437	-0.107	1140.939	108.176	-20.589
15.000	6.724	0.422	-0.120	1681.819	105.008	-23.788
20.000	8.834	0.408	-0.130	2206.858	101.788	-26.790
25.000	10.875	0.398	-0.140	2715.797	98.620	-29.310
30.000	12.864	0.388	-0.152	3208.896	95.496	-31.721
35.000	14.803	0.376	-0.164	3686.376	91.944	-34.359
40.000	16.685	0.369	-0.177	4146.094	89.512	-36.926
45.000	18.532	0.368	-0.186	4593.648	88.462	-38.486
50.000	20.372	0.369	-0.192	5035.961	87.879	-39.326
55.000	22.215	0.370	-0.198	5475.355	87.595	-39.973
60.000	24.066	0.373	-0.203	5913.328	87.443	-40.538

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 21

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00

FR 76

TRIM = 2.00

FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.219	0.586	-0.104	1832.512	169.171	-18.928
15.000	9.148	0.564	-0.118	2678.369	163.345	-23.124
20.000	11.968	0.544	-0.131	3495.096	157.619	-27.259
25.000	14.689	0.528	-0.144	4283.191	152.018	-30.741
30.000	17.327	0.512	-0.158	5043.281	146.530	-34.094
35.000	19.887	0.495	-0.173	5775.934	140.502	-37.803
40.000	22.360	0.483	-0.188	6478.445	136.279	-41.403
45.000	24.776	0.479	-0.199	7159.840	134.210	-43.459
50.000	27.172	0.478	-0.205	7830.891	132.871	-44.427
55.000	29.562	0.478	-0.210	8495.250	131.994	-45.085
60.000	31.954	0.480	-0.215	9155.215	131.310	-45.619

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 22

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00

FR 85

TRIM = 2.00

FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.633	0.804	-0.065	3042.261	278.924	0.796
15.000	12.655	0.774	-0.082	4436.879	269.045	-4.419
20.000	16.527	0.746	-0.098	5782.105	259.263	-10.179
25.000	20.260	0.722	-0.114	7078.422	249.598	-15.183
30.000	23.868	0.698	-0.131	8326.410	240.046	-20.151
35.000	27.359	0.672	-0.150	9526.645	229.570	-25.783
40.000	30.718	0.654	-0.169	10674.496	222.073	-31.276
45.000	33.987	0.646	-0.181	11784.863	218.137	-34.238
50.000	37.218	0.642	-0.188	12875.547	215.412	-35.431
55.000	40.429	0.640	-0.193	13952.605	213.444	-36.118
60.000	43.631	0.640	-0.198	15019.824	211.788	-36.594

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 23

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00

FR 95

TRIM = 2.00

FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.661	0.929	-0.026	3648.690	353.051	24.300
15.000	14.309	0.901	-0.040	5413.941	344.114	20.507
20.000	18.813	0.872	-0.056	7134.512	333.745	14.817
25.000	23.173	0.845	-0.072	8803.238	322.740	9.501
30.000	27.398	0.818	-0.090	10416.938	311.376	3.884
35.000	31.489	0.788	-0.112	11973.820	298.390	-2.831
40.000	35.427	0.766	-0.133	13465.773	288.949	-9.530
45.000	39.259	0.757	-0.146	14910.520	283.913	-13.041
50.000	43.044	0.751	-0.152	16330.086	280.303	-14.307
55.000	46.801	0.748	-0.158	17731.598	277.584	-14.960
60.000	50.542	0.746	-0.163	19119.520	275.203	-15.360

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 24

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00

FR 101

TRIM = 2.00

FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.981	0.998	-0.002	3858.871	398.438	39.732
15.000	14.973	0.994	-0.002	5851.059	406.182	45.708
20.000	19.945	0.977	-0.008	7881.969	403.488	46.489
25.000	24.828	0.954	-0.021	9899.406	395.248	43.776
30.000	29.596	0.928	-0.037	11875.648	384.571	39.285
35.000	34.236	0.896	-0.059	13798.500	370.635	32.607
40.000	38.716	0.873	-0.080	15651.676	360.288	25.431
45.000	43.082	0.863	-0.093	17453.117	354.941	21.888
50.000	47.399	0.857	-0.100	19227.820	351.069	20.976
55.000	51.687	0.854	-0.105	20983.168	348.064	20.672
60.000	55.956	0.851	-0.109	22723.484	345.331	20.624

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 4

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 67

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 1.00 FR 139

TRIM = 2.00 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.001	1.001	-0.001	3873.584	400.131	40.561
15.000	15.005	1.000	-0.001	5874.234	410.284	46.689
20.000	20.006	0.999	-0.001	7925.656	419.606	51.778
25.000	25.002	1.000	-0.000	10023.684	428.667	58.558
30.000	30.001	1.000	-0.000	12167.020	437.609	66.224
35.000	35.003	1.000	-0.000	14355.066	448.481	75.790
40.000	40.005	0.999	-0.000	16597.473	455.308	85.724
45.000	45.002	1.000	-0.000	18874.016	458.557	92.672
50.000	50.004	1.000	0.000	21166.797	458.966	96.944
55.000	55.003	1.000	-0.000	23461.629	458.822	100.400
60.000	60.003	1.000	-0.001	25755.742	458.067	103.328

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 FR 52

TRIM = 3.00 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.664	0.071	-0.036	58.984	6.566	-2.936
15.000	1.018	0.066	-0.038	91.817	6.584	-3.368
20.000	1.346	0.062	-0.037	124.737	6.607	-3.694
25.000	1.657	0.062	-0.039	157.771	6.671	-4.032
30.000	1.967	0.063	-0.042	191.124	6.750	-4.400
35.000	2.283	0.064	-0.047	224.873	6.795	-4.833
40.000	2.603	0.066	-0.051	258.848	6.926	-5.243
45.000	2.932	0.069	-0.055	293.479	7.155	-5.605
50.000	3.274	0.072	-0.059	329.256	7.414	-5.932
55.000	3.632	0.075	-0.063	366.326	7.699	-6.252
60.000	4.007	0.079	-0.067	404.823	8.003	-6.570

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 FR 61

TRIM = 3.00 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.083	0.221	-0.079	366.798	38.877	-12.002
15.000	3.186	0.214	-0.088	561.182	38.568	-14.020
20.000	4.258	0.209	-0.094	754.022	38.057	-15.504
25.000	5.302	0.206	-0.100	944.305	37.452	-16.829
30.000	6.331	0.204	-0.108	1131.566	36.785	-18.086
35.000	7.349	0.200	-0.117	1315.492	35.916	-19.550
40.000	8.350	0.200	-0.125	1495.070	35.510	-20.772
45.000	9.349	0.202	-0.132	1672.622	35.604	-21.668
50.000	10.359	0.205	-0.137	1850.642	35.830	-22.328
55.000	11.384	0.209	-0.143	2029.793	36.167	-22.906
60.000	12.428	0.213	-0.147	2210.628	36.570	-23.437

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 FR 70

TRIM = 3.00 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.429	0.435	-0.105	1120.350	107.536	-19.882
15.000	6.604	0.420	-0.121	1658.031	104.407	-23.963
20.000	8.704	0.406	-0.130	2180.068	101.284	-26.922
25.000	10.735	0.395	-0.141	2686.487	98.138	-29.532
30.000	12.712	0.385	-0.152	3177.175	94.968	-31.958
35.000	14.639	0.374	-0.166	3652.017	91.430	-34.885
40.000	16.508	0.368	-0.178	4109.168	89.200	-37.167
45.000	18.346	0.367	-0.186	4555.164	88.294	-38.591
50.000	20.180	0.367	-0.192	4996.633	87.749	-39.410
55.000	22.017	0.369	-0.197	5435.383	87.482	-40.015
60.000	23.864	0.372	-0.202	5872.789	87.361	-40.476

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 FR 76

TRIM = 3.00 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.115	0.583	-0.100	1813.584	168.332	-17.872
15.000	9.030	0.561	-0.120	2655.245	162.518	-23.437
20.000	11.837	0.542	-0.132	3467.837	156.923	-27.501
25.000	14.545	0.525	-0.145	4252.449	151.348	-31.122
30.000	17.169	0.509	-0.159	5009.188	145.789	-34.497
35.000	19.714	0.491	-0.176	5738.133	139.782	-38.649
40.000	22.171	0.481	-0.189	6437.043	135.867	-41.813
45.000	24.577	0.478	-0.199	7116.383	134.017	-43.665
50.000	26.967	0.477	-0.205	7786.465	132.740	-44.588
55.000	29.352	0.477	-0.210	8450.164	131.887	-45.195
60.000	31.736	0.479	-0.215	9109.598	131.255	-45.568

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 FR 85

TRIM = 3.00 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.568	0.801	-0.060	3043.057	277.881	2.527
15.000	12.573	0.771	-0.084	4432.461	267.893	-4.964
20.000	16.429	0.743	-0.099	5771.926	258.262	-10.614
25.000	20.146	0.718	-0.115	7063.238	248.604	-15.848
30.000	23.738	0.694	-0.132	8306.262	238.920	-20.853
35.000	27.209	0.668	-0.154	9500.859	228.472	-27.224
40.000	30.549	0.651	-0.171	10643.219	221.481	-31.992
45.000	33.806	0.645	-0.182	11750.625	217.898	-34.633
50.000	37.030	0.641	-0.188	12840.117	215.274	-35.759
55.000	40.236	0.639	-0.193	13916.488	213.349	-36.352
60.000	43.433	0.639	-0.198	14983.230	211.779	-36.571

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 FR 95

TRIM = 3.00 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.636	0.927	-0.019	3672.990	352.292	26.684
15.000	14.269	0.898	-0.042	5434.449	342.976	19.917
20.000	18.757	0.869	-0.057	7149.328	332.682	14.318
25.000	23.101	0.841	-0.074	8812.738	321.616	8.682
30.000	27.307	0.814	-0.092	10420.820	310.033	2.992
35.000	31.377	0.783	-0.116	11970.988	297.051	-4.703
40.000	35.294	0.764	-0.135	13456.242	288.247	-10.475
45.000	39.113	0.756	-0.146	14897.480	283.659	-13.576
50.000	42.891	0.750	-0.153	16315.777	280.172	-14.760
55.000	46.643	0.747	-0.158	17716.637	277.504	-15.296
60.000	50.380	0.746	-0.162	19104.156	275.232	-15.376

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 FR 101

TRIM = 3.00 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.979	0.998	0.006	3898.603	399.633	43.243
15.000	14.971	0.993	-0.003	5896.766	406.338	45.829
20.000	19.936	0.974	-0.009	7928.457	402.946	46.329
25.000	24.807	0.950	-0.023	9943.184	394.349	43.030
30.000	29.559	0.924	-0.039	11914.934	383.235	38.349
35.000	34.178	0.892	-0.064	13831.105	369.200	30.391
40.000	38.635	0.871	-0.083	15677.109	359.580	24.313
45.000	42.989	0.862	-0.094	17475.008	354.758	21.264
50.000	47.300	0.856	-0.101	19248.797	351.008	20.416
55.000	51.582	0.853	-0.105	21003.840	348.054	20.272
60.000	55.847	0.851	-0.108	22744.109	345.443	20.608

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 5

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 66

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 2.00 TRIM = 3.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.001	1.001	0.007	3914.145	401.356	44.101
15.000	15.005	1.000	-0.001	5920.926	411.302	46.851
20.000	20.005	0.999	-0.001	7977.434	420.962	52.451
25.000	25.002	1.000	-0.000	10082.242	430.200	59.165
30.000	30.001	1.000	-0.000	12233.242	439.522	66.999
35.000	35.003	1.000	-0.001	14430.855	450.468	77.152
40.000	40.004	1.000	-0.000	16683.195	456.698	86.696
45.000	45.002	1.000	-0.000	18966.688	459.411	92.816
50.000	50.004	1.000	-0.000	21263.742	459.657	96.848
55.000	55.003	1.000	0.000	23562.031	459.408	100.320
60.000	60.002	1.000	0.001	25859.070	458.707	103.680

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 64

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 3.00 TRIM = 4.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.629	0.070	-0.036	56.049	6.480	-2.980
15.000	0.980	0.066	-0.038	88.449	6.519	-3.359
20.000	1.309	0.062	-0.038	121.042	6.539	-3.686
25.000	1.618	0.061	-0.039	153.739	6.597	-4.022
30.000	1.925	0.062	-0.042	186.724	6.663	-4.388
35.000	2.236	0.063	-0.047	220.040	6.713	-4.825
40.000	2.551	0.065	-0.051	253.605	6.854	-5.227
45.000	2.876	0.068	-0.055	287.875	7.090	-5.569
50.000	3.215	0.071	-0.059	323.324	7.350	-5.892
55.000	3.570	0.074	-0.062	360.074	7.636	-6.208
60.000	3.940	0.078	-0.066	398.253	7.937	-6.529

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 64

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 3.00 TRIM = 4.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.004	0.219	-0.081	354.796	38.473	-12.354
15.000	3.098	0.213	-0.089	547.161	38.271	-14.023
20.000	4.165	0.208	-0.094	738.517	37.792	-15.520
25.000	5.202	0.204	-0.100	927.476	37.201	-16.870
30.000	6.223	0.202	-0.108	1113.480	36.492	-18.150
35.000	7.231	0.199	-0.117	1295.942	35.671	-19.655
40.000	8.225	0.198	-0.126	1474.298	35.331	-20.858
45.000	9.217	0.201	-0.132	1650.954	35.472	-21.660
50.000	10.221	0.204	-0.137	1828.314	35.715	-22.309
55.000	11.242	0.208	-0.142	2006.887	36.061	-22.877
60.000	12.281	0.212	-0.147	2187.191	36.461	-23.426

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 64

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 3.00 TRIM = 4.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.324	0.432	-0.109	1100.468	106.720	-21.025
15.000	6.483	0.418	-0.121	1634.068	103.816	-24.082
20.000	8.574	0.404	-0.131	2153.146	100.762	-27.057
25.000	10.595	0.393	-0.142	2656.955	97.652	-29.735
30.000	12.560	0.383	-0.153	3145.217	94.383	-32.224
35.000	14.472	0.372	-0.167	3617.132	90.974	-35.270
40.000	16.330	0.366	-0.179	4072.001	88.915	-37.500
45.000	18.160	0.366	-0.186	4516.574	88.130	-38.694
50.000	19.988	0.366	-0.192	4957.223	87.628	-39.487
55.000	21.820	0.368	-0.197	5395.367	87.389	-40.065
60.000	23.662	0.371	-0.202	5832.313	87.267	-40.579

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 64

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 3.00 TRIM = 4.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.015	0.579	-0.106	1795.712	167.219	-19.727
15.000	8.910	0.559	-0.121	2631.808	161.706	-23.666
20.000	11.705	0.539	-0.133	3440.336	156.199	-27.749
25.000	14.400	0.522	-0.146	4221.328	150.673	-31.473
30.000	17.010	0.506	-0.160	4974.691	144.958	-34.943
35.000	19.538	0.489	-0.177	5699.484	139.150	-39.280
40.000	21.982	0.479	-0.191	6395.230	135.497	-42.364
45.000	24.378	0.477	-0.199	7072.715	133.832	-43.865
50.000	26.762	0.476	-0.205	7741.875	132.618	-44.756
55.000	29.141	0.476	-0.210	8404.969	131.812	-45.312
60.000	31.524	0.478	-0.215	9064.027	131.177	-45.781

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 64

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 3.00 TRIM = 4.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.508	0.796	-0.069	3045.584	276.383	-0.566
15.000	12.490	0.768	-0.085	4427.496	266.763	-5.367
20.000	16.330	0.740	-0.101	5761.313	257.216	-11.051
25.000	20.031	0.715	-0.117	7047.391	247.603	-16.464
30.000	23.605	0.690	-0.134	8285.406	237.646	-21.628
35.000	27.055	0.665	-0.156	9473.637	227.518	-28.299
40.000	30.378	0.649	-0.173	10611.227	220.953	-32.944
45.000	33.624	0.644	-0.182	11715.992	217.673	-35.006
50.000	36.842	0.640	-0.189	12804.355	215.156	-36.074
55.000	40.042	0.639	-0.194	13880.137	213.305	-36.601
60.000	43.235	0.638	-0.198	14946.660	211.734	-36.966

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 64

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 3.00 TRIM = 4.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.616	0.922	-0.029	3699.674	350.939	22.979
15.000	14.227	0.895	-0.043	5454.367	341.856	19.505
20.000	18.700	0.865	-0.059	7163.648	331.554	13.814
25.000	23.027	0.838	-0.076	8821.422	320.478	7.907
30.000	27.215	0.809	-0.095	10423.813	308.494	1.997
35.000	31.261	0.780	-0.119	11966.285	295.896	-6.100
40.000	35.159	0.761	-0.137	13445.770	287.627	-11.717
45.000	38.967	0.754	-0.147	14883.902	283.423	-14.072
50.000	42.738	0.749	-0.154	16301.016	280.065	-15.199
55.000	46.484	0.747	-0.159	17701.344	277.488	-15.648
60.000	50.217	0.745	-0.163	19088.781	275.216	-15.920

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 64

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 3.00 TRIM = 4.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.985	0.997	-0.003	3941.846	400.150	40.146
15.000	14.968	0.992	-0.003	5942.594	406.438	46.526
20.000	19.927	0.972	-0.011	7974.785	402.286	46.139
25.000	24.784	0.947	-0.025	9986.215	393.413	42.328
30.000	29.520	0.919	-0.042	11953.281	381.643	37.274
35.000	34.114	0.888	-0.067	13861.500	367.984	28.752
40.000	38.553	0.868	-0.086	15701.422	358.970	22.821
45.000	42.895	0.861	-0.095	17496.270	354.589	20.672
50.000	47.199	0.856	-0.101	19269.215	350.979	19.904
55.000	51.477	0.852	-0.106	21024.109	348.122	19.840
60.000	55.739	0.850	-0.109	22764.719	345.494	19.952

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 6

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 41
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 64

TRIM = 3.00 — TRIM = 4.00
FR 139 — FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.008	0.999	-0.002	3958.246	401.906	41.006
15.000	15.003	1.000	-0.001	5967.777	412.421	47.729
20.000	20.004	0.999	-0.001	8029.883	422.305	53.226
25.000	25.001	1.000	-0.000	10141.406	431.767	59.802
30.000	30.001	1.000	-0.000	12300.242	441.553	67.766
35.000	35.002	1.000	-0.000	14508.008	452.377	78.906
40.000	40.004	1.000	-0.001	16769.891	457.922	87.130
45.000	45.002	1.000	-0.000	19059.504	460.218	92.960
50.000	50.004	1.000	-0.000	21360.590	460.352	96.752
55.000	55.003	1.000	-0.000	23662.352	460.080	100.192
60.000	60.003	1.000	-0.000	25962.750	459.264	103.168

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 42
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 65

TRIM = 4.00 — TRIM = 5.00
FR 52 — FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.592	0.070	-0.036	53.069	6.404	-2.960
15.000	0.942	0.066	-0.038	85.090	6.453	-3.349
20.000	1.271	0.062	-0.038	117.356	6.472	-3.678
25.000	1.579	0.061	-0.039	149.717	6.524	-4.012
30.000	1.883	0.061	-0.042	182.336	6.576	-4.377
35.000	2.189	0.062	-0.046	215.214	6.633	-4.811
40.000	2.500	0.064	-0.051	248.378	6.786	-5.197
45.000	2.822	0.067	-0.054	282.306	7.025	-5.532
50.000	3.157	0.070	-0.058	317.431	7.287	-5.845
55.000	3.507	0.073	-0.062	353.867	7.571	-6.163
60.000	3.874	0.077	-0.065	391.724	7.873	-6.480

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 43
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 65

TRIM = 4.00 — TRIM = 5.00
FR 61 — FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.923	0.217	-0.081	342.442	38.139	-12.339
15.000	3.009	0.212	-0.089	533.139	37.972	-14.029
20.000	4.071	0.206	-0.095	722.997	37.522	-15.538
25.000	5.102	0.203	-0.100	910.605	36.945	-16.914
30.000	6.115	0.200	-0.108	1095.330	36.191	-18.215
35.000	7.114	0.197	-0.118	1276.287	35.431	-19.727
40.000	8.099	0.197	-0.125	1453.440	35.171	-20.864
45.000	9.085	0.200	-0.131	1629.294	35.342	-21.644
50.000	10.084	0.203	-0.136	1806.005	35.601	-22.250
55.000	11.100	0.207	-0.142	1984.010	35.951	-22.840
60.000	12.134	0.211	-0.146	2163.765	36.355	-23.379

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 44
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 65

TRIM = 4.00 — TRIM = 5.00
FR 70 — FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.215	0.429	-0.109	1079.443	106.109	-21.145
15.000	6.382	0.416	-0.122	1609.986	103.221	-24.210
20.000	8.442	0.402	-0.132	2126.089	100.226	-27.204
25.000	10.453	0.391	-0.142	2627.220	97.155	-29.951
30.000	12.407	0.380	-0.154	3112.993	93.774	-32.499
35.000	14.305	0.369	-0.168	3581.862	90.528	-35.566
40.000	16.151	0.364	-0.179	4034.501	88.676	-37.634
45.000	17.974	0.364	-0.186	4477.879	87.972	-38.776
50.000	19.796	0.365	-0.191	4917.738	87.513	-39.466
55.000	21.623	0.367	-0.197	5355.301	87.287	-40.106
60.000	23.460	0.370	-0.201	5791.734	87.180	-40.596

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 45
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 65

TRIM = 4.00 — TRIM = 5.00
FR 76 — FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.909	0.576	-0.107	1775.985	166.431	-19.978
15.000	8.789	0.556	-0.122	2608.142	160.889	-23.913
20.000	11.571	0.537	-0.135	3412.587	155.454	-28.015
25.000	14.254	0.519	-0.147	4189.855	149.979	-31.846
30.000	16.850	0.502	-0.161	4939.750	144.091	-35.408
35.000	19.361	0.486	-0.179	5660.203	138.533	-39.776
40.000	21.791	0.478	-0.191	6352.867	135.197	-42.614
45.000	24.179	0.476	-0.199	7028.852	133.654	-44.036
50.000	26.557	0.475	-0.205	7697.121	132.507	-44.769
55.000	28.931	0.476	-0.210	8359.656	131.718	-45.429
60.000	31.309	0.477	-0.215	9018.250	131.113	-45.845

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 46
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 65

TRIM = 4.00 — TRIM = 5.00
FR 85 — FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.439	0.793	-0.070	3045.018	275.423	-1.017
15.000	12.405	0.765	-0.086	4422.129	265.626	-5.809
20.000	16.229	0.737	-0.102	5750.262	256.133	-11.525
25.000	19.914	0.711	-0.119	7030.926	246.571	-17.114
30.000	23.471	0.686	-0.136	8263.781	236.311	-22.440
35.000	26.899	0.661	-0.159	9445.336	226.589	-29.162
40.000	30.205	0.647	-0.174	10578.281	220.540	-33.404
45.000	33.442	0.642	-0.183	11680.984	217.460	-35.343
50.000	36.654	0.639	-0.188	12768.281	215.050	-36.155
55.000	39.849	0.638	-0.194	13843.535	213.232	-36.849
60.000	43.037	0.637	-0.198	14909.695	211.709	-37.135

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 47
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 65

TRIM = 4.00 — TRIM = 5.00
FR 95 — FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.587	0.919	-0.030	3722.653	350.244	22.584
15.000	14.184	0.891	-0.045	5473.871	340.718	19.031
20.000	18.641	0.862	-0.061	7177.461	330.373	13.257
25.000	22.950	0.834	-0.078	8829.328	319.296	7.102
30.000	27.120	0.804	-0.097	10425.809	306.875	0.950
35.000	31.142	0.776	-0.122	11960.188	294.773	-7.234
40.000	35.022	0.760	-0.139	13434.051	287.156	-12.339
45.000	38.820	0.753	-0.148	14869.832	283.197	-14.534
50.000	42.584	0.748	-0.153	16285.816	279.975	-15.316
55.000	46.326	0.746	-0.159	17685.695	277.434	-15.984
60.000	50.055	0.744	-0.163	19072.863	275.226	-16.144

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 48
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 65

TRIM = 4.00 — TRIM = 5.00
FR 101 — FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.981	0.997	-0.003	3981.992	401.426	40.596
15.000	14.965	0.990	-0.003	5989.121	406.361	46.893
20.000	19.916	0.969	-0.012	8020.926	401.523	45.846
25.000	24.760	0.944	-0.027	10028.543	392.403	41.574
30.000	29.478	0.914	-0.044	11990.555	379.939	36.125
35.000	34.047	0.884	-0.070	13890.250	366.798	27.436
40.000	38.467	0.867	-0.087	15724.242	358.540	22.103
45.000	42.799	0.860	-0.096	17516.941	354.435	20.144
50.000	47.098	0.855	-0.101	19289.117	350.966	19.760
55.000	51.371	0.852	-0.106	21043.949	348.144	19.408
60.000	55.630	0.850	-0.109	22784.672	345.574	19.632

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 7

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 65

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 4.00 TRIM = 5.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.006	0.999	-0.002	3999.252	403.251	41.469
15.000	15.002	1.000	-0.001	6015.504	413.521	48.306
20.000	20.003	0.999	-0.001	8083.109	423.620	53.935
25.000	25.001	1.000	-0.000	10201.211	433.359	60.555
30.000	30.001	1.000	-0.000	12368.008	443.781	68.506
35.000	35.002	1.000	-0.000	14586.914	454.021	79.609
40.000	40.003	1.000	0.000	16857.023	459.088	88.160
45.000	45.002	1.000	-0.000	19152.461	460.976	93.088
50.000	50.003	1.000	0.001	21457.344	461.040	97.136
55.000	55.003	1.000	-0.000	23762.543	460.675	100.064
60.000	60.002	1.000	-0.000	26065.918	459.833	103.072

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00 TRIM = 6.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.556	0.070	-0.036	50.109	6.327	-2.937
15.000	0.904	0.066	-0.039	81.741	6.387	-3.338
20.000	1.233	0.061	-0.039	113.678	6.405	-3.671
25.000	1.540	0.060	-0.039	145.705	6.451	-4.003
30.000	1.841	0.060	-0.042	177.959	6.489	-4.318
35.000	2.148	0.061	-0.046	210.403	6.556	-4.793
40.000	2.450	0.063	-0.050	243.181	6.719	-5.172
45.000	2.767	0.066	-0.054	276.774	6.963	-5.496
50.000	3.099	0.069	-0.057	311.587	7.223	-5.812
55.000	3.446	0.073	-0.061	347.703	7.508	-6.118
60.000	3.809	0.076	-0.065	385.244	7.809	-6.431

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00 TRIM = 6.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.842	0.215	-0.081	330.103	37.801	-12.311
15.000	2.920	0.211	-0.090	519.110	37.670	-14.031
20.000	3.976	0.205	-0.095	707.458	37.247	-15.554
25.000	5.002	0.201	-0.101	893.691	36.685	-16.954
30.000	6.007	0.198	-0.107	1077.115	35.889	-18.007
35.000	6.996	0.195	-0.118	1256.560	35.203	-19.779
40.000	7.974	0.196	-0.125	1432.576	35.015	-20.897
45.000	8.954	0.199	-0.131	1607.650	35.221	-21.632
50.000	9.948	0.202	-0.136	1783.755	35.483	-22.263
55.000	10.958	0.206	-0.141	1961.170	35.843	-22.799
60.000	11.987	0.210	-0.146	2140.386	36.253	-23.329

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00 TRIM = 6.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.106	0.427	-0.110	1058.298	105.496	-21.240
15.000	6.240	0.414	-0.123	1585.776	102.622	-24.335
20.000	8.310	0.400	-0.133	2098.885	99.677	-27.342
25.000	10.311	0.388	-0.143	2597.269	96.645	-30.155
30.000	12.253	0.377	-0.152	3080.494	93.160	-32.060
35.000	14.137	0.367	-0.169	3546.296	90.114	-35.815
40.000	15.972	0.363	-0.179	3996.867	88.448	-37.840
45.000	17.787	0.363	-0.186	4439.102	87.834	-38.869
50.000	19.604	0.364	-0.192	4878.270	87.385	-39.621
55.000	21.426	0.366	-0.196	5315.195	87.189	-40.129
60.000	23.258	0.369	-0.201	5751.137	87.101	-40.601

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00 TRIM = 6.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.802	0.573	-0.107	1756.007	165.644	-20.200
15.000	8.668	0.554	-0.123	2584.229	160.069	-24.155
20.000	11.437	0.534	-0.136	3384.572	154.688	-28.268
25.000	14.107	0.517	-0.148	4158.008	149.266	-32.201
30.000	16.689	0.499	-0.159	4904.340	143.217	-34.768
35.000	19.182	0.484	-0.180	5620.426	137.965	-40.200
40.000	21.599	0.476	-0.192	6310.254	134.912	-42.973
45.000	23.980	0.474	-0.199	6984.816	133.507	-44.225
50.000	26.352	0.474	-0.205	7652.352	132.375	-45.053
55.000	28.721	0.475	-0.210	8314.227	131.635	-45.510
60.000	31.094	0.476	-0.214	8972.402	131.059	-45.905

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00 TRIM = 6.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.370	0.790	-0.071	3044.001	274.464	-1.422
15.000	12.319	0.762	-0.088	4416.320	264.483	-6.243
20.000	16.127	0.734	-0.104	5738.734	255.015	-11.978
25.000	19.795	0.708	-0.120	7013.813	245.505	-17.743
30.000	23.335	0.681	-0.133	8241.340	234.967	-21.424
35.000	26.740	0.658	-0.160	9416.176	225.741	-29.901
40.000	30.031	0.646	-0.175	10544.879	220.153	-34.048
45.000	33.259	0.641	-0.183	11645.641	217.297	-35.701
50.000	36.465	0.638	-0.189	12732.129	214.911	-36.674
55.000	39.655	0.637	-0.194	13806.684	213.175	-37.033
60.000	42.839	0.636	-0.198	14872.559	211.700	-37.288

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00 TRIM = 6.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.557	0.916	-0.031	3745.237	349.533	22.229
15.000	14.139	0.888	-0.046	5492.902	339.563	18.563
20.000	18.580	0.858	-0.063	7190.719	329.142	12.725
25.000	22.872	0.830	-0.080	8836.430	318.066	6.312
30.000	27.023	0.799	-0.093	10426.762	305.238	2.283
35.000	31.020	0.773	-0.124	11952.953	293.752	-8.192
40.000	34.883	0.758	-0.140	13421.711	286.717	-13.181
45.000	38.672	0.752	-0.149	14855.297	283.041	-15.016
50.000	42.431	0.747	-0.155	16270.504	279.842	-16.019
55.000	46.167	0.745	-0.159	17669.711	277.401	-16.272
60.000	49.892	0.743	-0.163	19056.719	275.251	-16.384

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00 TRIM = 6.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.979	0.997	-0.002	4022.588	402.686	41.028
15.000	14.962	0.988	-0.003	6036.016	406.151	47.119
20.000	19.904	0.966	-0.013	8066.770	400.669	45.560
25.000	24.733	0.940	-0.029	10070.117	391.313	40.828
30.000	29.433	0.909	-0.040	12026.680	378.201	37.910
35.000	33.977	0.881	-0.072	13917.688	365.732	26.324
40.000	38.380	0.865	-0.089	15746.344	358.148	21.109
45.000	42.703	0.859	-0.097	17537.086	354.358	19.552
50.000	46.997	0.854	-0.103	19308.879	350.896	18.912
55.000	51.265	0.851	-0.106	21063.359	348.189	19.088
60.000	55.520	0.849	-0.110	22804.301	345.683	19.328

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 8

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 68

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 5.00

FR 139

TRIM = 6.00

FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.004	0.999	-0.001	4040.721	404.618	41.917
15.000	15.002	1.000	-0.001	6063.813	414.647	48.971
20.000	20.003	1.000	-0.001	8137.047	424.944	54.770
25.000	25.000	1.000	-0.000	10261.766	434.950	61.286
30.000	30.000	1.000	0.007	12436.516	446.002	72.711
35.000	35.002	1.000	-0.000	14666.523	455.732	80.428
40.000	40.004	1.000	-0.000	16945.184	460.073	88.416
45.000	45.002	1.000	-0.000	19245.551	461.785	93.088
50.000	50.004	1.000	-0.001	21554.477	461.625	96.544
55.000	55.003	1.000	0.000	23862.605	461.277	100.064
60.000	60.002	1.000	0.000	26168.988	460.435	103.024

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00

FR 52

TRIM = 7.00

FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.520	0.069	-0.036	47.171	6.246	-2.915
15.000	0.865	0.066	-0.039	78.403	6.321	-3.328
20.000	1.194	0.061	-0.039	110.007	6.339	-3.663
25.000	1.501	0.060	-0.039	141.702	6.388	-3.956
30.000	1.799	0.059	-0.042	173.641	6.394	-4.350
35.000	2.096	0.061	-0.046	205.611	6.480	-4.774
40.000	2.400	0.063	-0.050	238.009	6.654	-5.141
45.000	2.713	0.066	-0.053	271.278	6.899	-5.455
50.000	3.041	0.069	-0.057	305.775	7.162	-5.766
55.000	3.385	0.072	-0.061	341.585	7.446	-6.074
60.000	3.744	0.075	-0.064	378.813	7.745	-6.385

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00

FR 61

TRIM = 7.00

FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.762	0.214	-0.080	317.791	37.458	-12.295
15.000	2.830	0.210	-0.090	505.079	37.365	-14.037
20.000	3.881	0.204	-0.096	691.905	36.966	-15.570
25.000	4.901	0.200	-0.100	876.737	36.474	-16.775
30.000	5.901	0.196	-0.108	1059.108	35.535	-18.315
35.000	6.879	0.194	-0.118	1236.781	34.980	-19.829
40.000	7.848	0.195	-0.125	1411.679	34.868	-20.901
45.000	8.823	0.198	-0.130	1586.018	35.095	-21.596
50.000	9.812	0.201	-0.136	1761.492	35.376	-22.211
55.000	10.817	0.205	-0.140	1938.371	35.737	-22.768
60.000	11.842	0.209	-0.145	2117.057	36.151	-23.294

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00

FR 70

TRIM = 7.00

FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.997	0.424	-0.110	1037.058	104.877	-21.384
15.000	6.117	0.412	-0.124	1561.441	102.020	-24.476
20.000	8.177	0.398	-0.134	2071.543	99.114	-27.484
25.000	10.167	0.387	-0.142	2567.114	96.264	-29.777
30.000	12.101	0.373	-0.155	3048.434	92.409	-32.972
35.000	13.968	0.365	-0.170	3510.481	89.709	-36.058
40.000	15.793	0.362	-0.180	3959.027	88.242	-37.971
45.000	17.601	0.362	-0.186	4400.234	87.683	-38.898
50.000	19.412	0.363	-0.191	4838.648	87.283	-39.619
55.000	21.230	0.366	-0.196	5275.066	87.094	-40.178
60.000	23.057	0.368	-0.201	5710.535	87.022	-40.645

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00

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TRIM = 7.00

FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.695	0.570	-0.108	1735.807	164.853	-20.495
15.000	8.545	0.551	-0.124	2560.074	159.246	-24.425
20.000	11.301	0.531	-0.137	3356.304	153.901	-28.529
25.000	13.958	0.514	-0.147	4125.809	148.753	-31.650
30.000	16.530	0.494	-0.163	4869.574	142.131	-36.212
35.000	19.002	0.481	-0.181	5580.227	137.411	-40.615
40.000	21.407	0.475	-0.193	6267.281	134.662	-43.217
45.000	23.781	0.473	-0.199	6940.590	133.342	-44.314
50.000	26.147	0.473	-0.205	7607.297	132.284	-45.094
55.000	28.512	0.474	-0.210	8268.719	131.556	-45.626
60.000	30.880	0.475	-0.214	8926.500	131.005	-46.021

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00

FR 85

TRIM = 7.00

FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.299	0.786	-0.072	3042.579	273.500	-1.961
15.000	12.231	0.758	-0.089	4410.078	263.336	-6.727
20.000	16.023	0.730	-0.106	5726.758	253.862	-12.448
25.000	19.674	0.706	-0.118	6996.070	244.769	-16.873
30.000	23.202	0.676	-0.140	8219.918	233.272	-23.852
35.000	26.580	0.655	-0.162	9386.273	224.911	-30.632
40.000	29.856	0.644	-0.176	10510.832	219.822	-34.494
45.000	33.076	0.640	-0.183	11609.941	217.103	-35.906
50.000	36.276	0.637	-0.189	12695.453	214.840	-36.798
55.000	39.462	0.636	-0.194	13769.652	213.124	-37.281
60.000	42.641	0.636	-0.198	14835.270	211.690	-37.537

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00

FR 95

TRIM = 7.00

FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.526	0.913	-0.032	3767.466	348.800	21.694
15.000	14.093	0.885	-0.048	5511.465	338.396	18.029
20.000	18.517	0.855	-0.065	7203.445	327.859	12.165
25.000	22.792	0.828	-0.077	8842.742	317.260	7.461
30.000	26.930	0.793	-0.101	10429.043	303.143	-0.864
35.000	30.896	0.769	-0.126	11944.762	292.754	-9.150
40.000	34.743	0.756	-0.141	13408.531	286.350	-13.780
45.000	38.523	0.751	-0.149	14840.281	282.840	-15.302
50.000	42.276	0.746	-0.155	16254.484	279.791	-16.201
55.000	46.008	0.744	-0.159	17653.438	277.379	-16.608
60.000	49.729	0.743	-0.163	19040.336	275.277	-16.736

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00

FR 101

TRIM = 7.00

FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.976	0.997	-0.002	4063.616	403.904	41.227
15.000	14.959	0.986	-0.004	6083.133	405.839	47.192
20.000	19.890	0.963	-0.015	8112.328	399.723	45.225
25.000	24.704	0.938	-0.025	10110.945	390.729	42.445
30.000	29.393	0.902	-0.049	12064.590	375.884	34.158
35.000	33.905	0.877	-0.075	13944.012	364.689	25.220
40.000	38.291	0.863	-0.090	15767.453	357.837	20.400
45.000	42.607	0.858	-0.097	17556.637	354.230	19.232
50.000	46.894	0.853	-0.102	19327.789	350.931	18.688
55.000	51.159	0.850	-0.107	21082.445	348.237	18.656
60.000	55.411	0.848	-0.110	22823.629	345.789	18.896

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 9

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 70

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 6.00 TRIM = 7.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.003	1.000	-0.001	4082.638	406.029	42.130
15.000	15.001	1.000	-0.001	6112.781	415.806	49.531
20.000	20.002	1.000	-0.001	8191.816	426.247	55.603
25.000	25.000	1.001	0.006	10323.051	437.235	64.717
30.000	30.008	0.999	0.001	12509.227	447.545	70.817
35.000	35.002	1.000	0.000	14746.949	457.329	81.335
40.000	40.003	1.000	-0.000	17033.598	461.008	88.768
45.000	45.001	1.000	0.000	19338.637	462.477	93.376
50.000	50.003	1.000	0.000	21651.023	462.330	96.768
55.000	55.003	1.000	-0.000	23962.672	461.869	99.872
60.000	60.002	1.000	-0.000	26272.016	461.018	102.768

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 TRIM = 8.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.484	0.068	-0.036	44.257	6.164	-2.892
15.000	0.826	0.066	-0.039	75.075	6.254	-3.274
20.000	1.155	0.061	-0.040	106.344	6.280	-3.656
25.000	1.462	0.059	-0.040	137.746	6.309	-3.989
30.000	1.757	0.059	-0.042	169.291	6.309	-4.356
35.000	2.050	0.060	-0.046	200.836	6.406	-4.761
40.000	2.350	0.062	-0.049	232.868	6.591	-5.109
45.000	2.660	0.065	-0.053	265.823	6.837	-5.419
50.000	2.984	0.068	-0.056	300.009	7.100	-5.726
55.000	3.324	0.071	-0.060	335.511	7.384	-6.031
60.000	3.680	0.075	-0.064	372.428	7.682	-6.337

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 TRIM = 8.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.681	0.212	-0.080	305.496	37.109	-12.291
15.000	2.740	0.209	-0.089	491.042	37.058	-13.788
20.000	3.785	0.203	-0.096	676.334	36.725	-15.589
25.000	4.801	0.198	-0.102	859.961	36.166	-17.049
30.000	5.792	0.194	-0.109	1040.792	35.232	-18.469
35.000	6.761	0.192	-0.118	1216.952	34.765	-19.907
40.000	7.723	0.194	-0.125	1390.778	34.729	-20.892
45.000	8.692	0.197	-0.130	1564.422	34.972	-21.580
50.000	9.676	0.200	-0.135	1739.281	35.264	-22.187
55.000	10.677	0.204	-0.140	1915.603	35.632	-22.731
60.000	11.697	0.208	-0.145	2093.763	36.048	-23.246

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 TRIM = 8.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.887	0.421	-0.110	1015.674	104.258	-21.569
15.000	5.993	0.410	-0.121	1536.965	101.419	-23.919
20.000	8.043	0.397	-0.135	2044.059	98.656	-27.637
25.000	10.026	0.384	-0.145	2537.337	95.625	-30.605
30.000	11.946	0.370	-0.157	3015.462	91.792	-33.481
35.000	13.798	0.363	-0.171	3474.423	89.327	-36.375
40.000	15.613	0.361	-0.180	3921.056	88.056	-38.073
45.000	17.416	0.361	-0.186	4361.336	87.539	-38.986
50.000	19.221	0.362	-0.191	4799.031	87.171	-39.684
55.000	21.033	0.365	-0.196	5234.887	87.001	-40.217
60.000	22.856	0.367	-0.200	5669.891	86.938	-40.660

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 TRIM = 8.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.587	0.567	-0.109	1715.312	164.067	-20.864
15.000	8.421	0.549	-0.121	2535.649	158.425	-23.604
20.000	11.164	0.529	-0.138	3327.775	153.277	-28.808
25.000	13.811	0.511	-0.151	4094.160	147.841	-32.973
30.000	16.367	0.491	-0.166	4833.359	141.250	-37.038
35.000	18.821	0.479	-0.182	5539.613	136.890	-41.144
40.000	21.215	0.473	-0.193	6224.063	134.443	-43.418
45.000	23.581	0.472	-0.199	6896.277	133.186	-44.490
50.000	25.942	0.472	-0.205	7562.203	132.177	-45.238
55.000	28.302	0.473	-0.209	8223.090	131.477	-45.737
60.000	30.666	0.474	-0.214	8880.477	130.943	-46.088

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 TRIM = 8.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.227	0.783	-0.073	3040.618	272.547	-2.626
15.000	12.142	0.755	-0.085	4403.352	262.192	-5.408
20.000	15.917	0.728	-0.108	5714.309	252.977	-12.946
25.000	19.556	0.701	-0.124	6979.195	243.373	-19.097
30.000	23.062	0.671	-0.143	8196.063	231.916	-25.241
35.000	26.418	0.652	-0.164	9355.641	224.139	-31.561
40.000	29.680	0.643	-0.177	10476.336	219.540	-34.882
45.000	32.893	0.639	-0.184	11574.035	216.924	-36.249
50.000	36.087	0.636	-0.189	12658.656	214.743	-37.083
55.000	39.268	0.635	-0.194	13732.371	213.073	-37.515
60.000	42.444	0.635	-0.198	14797.734	211.670	-37.705

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 TRIM = 8.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.494	0.910	-0.033	3789.160	348.067	20.988
15.000	14.045	0.881	-0.043	5529.492	337.223	19.800
20.000	18.453	0.852	-0.066	7215.609	326.919	11.567
25.000	22.715	0.823	-0.085	8850.203	315.595	4.608
30.000	26.829	0.788	-0.106	10428.180	301.486	-2.662
35.000	30.770	0.766	-0.129	11935.609	291.828	-10.364
40.000	34.602	0.755	-0.142	13394.750	286.045	-14.299
45.000	38.375	0.749	-0.149	14824.980	282.660	-15.762
50.000	42.122	0.746	-0.155	16238.281	279.709	-16.603
55.000	45.849	0.743	-0.159	17636.828	277.354	-16.928
60.000	49.566	0.742	-0.163	19023.598	275.290	-16.992

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 TRIM = 8.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.974	0.996	-0.002	4104.840	405.097	41.541
15.000	14.955	0.984	0.002	6130.324	405.446	49.950
20.000	19.875	0.961	-0.017	8157.555	399.167	44.821
25.000	24.680	0.933	-0.033	10153.391	389.072	39.146
30.000	29.344	0.897	-0.054	12098.750	374.096	32.058
35.000	33.830	0.874	-0.078	13969.230	363.725	23.793
40.000	38.200	0.862	-0.091	15787.855	357.603	19.807
45.000	42.509	0.856	-0.098	17575.871	354.122	18.688
50.000	46.792	0.852	-0.103	19346.477	350.925	18.208
55.000	51.053	0.850	-0.107	21101.102	348.285	18.256
60.000	55.301	0.848	-0.110	22842.527	345.875	18.592

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 10

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 71

LOADING MANUAL CALCULATIONS — PAGE 73

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 7.00 FR 139 — TRIM = 8.00 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.002	1.000	-0.001	4124.766	407.509	42.455
15.000	15.000	1.000	0.006	6162.313	417.021	52.922
20.000	20.001	1.001	-0.000	8247.418	428.070	56.452
25.000	25.006	1.001	-0.001	10387.770	438.455	62.808
30.000	30.009	0.999	-0.000	12580.043	449.649	71.439
35.000	35.002	1.000	-0.000	14828.285	458.816	81.963
40.000	40.003	1.000	-0.000	17122.367	461.929	89.104
45.000	45.002	1.000	0.000	19432.016	463.155	93.312
50.000	50.004	1.000	-0.000	21747.789	462.950	96.608
55.000	55.003	1.000	-0.000	24062.543	462.448	99.728
60.000	60.002	1.000	0.000	26374.781	461.562	102.656

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 69

LOADING MANUAL CALCULATIONS — PAGE 74

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 8.00 FR 52 — TRIM = 9.00 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.449	0.068	-0.035	41.364	6.087	-2.865
15.000	0.787	0.066	-0.039	71.800	6.177	-3.308
20.000	1.115	0.061	-0.040	102.688	6.214	-3.649
25.000	1.422	0.059	-0.040	133.757	6.236	-3.982
30.000	1.715	0.058	-0.042	164.935	6.228	-4.361
35.000	2.005	0.059	-0.046	196.075	6.337	-4.743
40.000	2.300	0.061	-0.049	227.759	6.529	-5.079
45.000	2.607	0.064	-0.052	260.404	6.776	-5.382
50.000	2.928	0.067	-0.056	294.284	7.039	-5.682
55.000	3.264	0.070	-0.059	329.480	7.322	-5.985
60.000	3.616	0.074	-0.063	366.092	7.617	-6.290

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 69

LOADING MANUAL CALCULATIONS — PAGE 75

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 8.00 FR 61 — TRIM = 9.00 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.601	0.210	-0.080	293.206	36.810	-12.273
15.000	2.652	0.207	-0.090	477.254	36.698	-14.073
20.000	3.688	0.202	-0.097	660.746	36.433	-15.603
25.000	4.699	0.197	-0.102	842.913	35.882	-17.090
30.000	5.683	0.192	-0.110	1022.323	34.944	-18.618
35.000	6.643	0.191	-0.118	1197.045	34.568	-19.952
40.000	7.599	0.193	-0.124	1369.886	34.591	-20.895
45.000	8.562	0.196	-0.130	1542.842	34.850	-21.565
50.000	9.541	0.199	-0.135	1717.094	35.156	-22.147
55.000	10.537	0.203	-0.139	1892.872	35.529	-22.690
60.000	11.552	0.207	-0.144	2070.517	35.938	-23.202

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 69

LOADING MANUAL CALCULATIONS — PAGE 76

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 8.00 FR 70 — TRIM = 9.00 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.777	0.419	-0.110	994.105	103.788	-21.726
15.000	5.872	0.407	-0.125	1513.046	100.675	-24.844
20.000	7.907	0.395	-0.136	2016.422	98.062	-27.780
25.000	9.880	0.382	-0.146	2506.732	95.050	-30.816
30.000	11.789	0.368	-0.159	2981.981	91.213	-33.981
35.000	13.628	0.361	-0.171	3438.048	88.987	-36.611
40.000	15.434	0.359	-0.180	3882.983	87.874	-38.199
45.000	17.230	0.360	-0.186	4322.352	87.399	-39.072
50.000	19.030	0.361	-0.191	4759.348	87.065	-39.709
55.000	20.838	0.364	-0.195	5194.672	86.912	-40.238
60.000	22.656	0.366	-0.200	5629.230	86.840	-40.682

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 69

LOADING MANUAL CALCULATIONS — PAGE 77

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 8.00 FR 76 — TRIM = 9.00 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.476	0.564	-0.109	1694.448	163.519	-21.193
15.000	8.301	0.545	-0.126	2512.045	157.384	-25.110
20.000	11.026	0.527	-0.140	3298.967	152.444	-29.073
25.000	13.660	0.508	-0.153	4061.187	147.028	-33.338
30.000	16.201	0.488	-0.169	4796.324	140.429	-37.851
35.000	18.638	0.477	-0.184	5498.469	136.435	-41.552
40.000	21.022	0.472	-0.193	6180.645	134.228	-43.655
45.000	23.382	0.471	-0.199	6851.785	133.036	-44.668
50.000	25.738	0.471	-0.205	7516.965	132.078	-45.324
55.000	28.093	0.472	-0.209	8177.355	131.407	-45.816
60.000	30.452	0.473	-0.213	8834.391	130.858	-46.167

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 69

LOADING MANUAL CALCULATIONS — PAGE 78

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 8.00 FR 85 — TRIM = 9.00 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.154	0.780	-0.074	3037.992	271.990	-3.231
15.000	12.056	0.751	-0.093	4397.941	260.684	-7.951
20.000	15.809	0.725	-0.109	5701.363	251.747	-13.424
25.000	19.432	0.697	-0.127	6960.102	242.145	-19.739
30.000	22.919	0.667	-0.147	8170.824	230.652	-26.632
35.000	26.254	0.650	-0.166	9324.082	223.475	-32.271
40.000	29.503	0.641	-0.178	10441.453	219.266	-35.321
45.000	32.709	0.638	-0.184	11537.785	216.757	-36.586
50.000	35.898	0.635	-0.189	12621.574	214.657	-37.281
55.000	39.074	0.634	-0.194	13694.855	213.035	-37.697
60.000	42.246	0.634	-0.198	14760.027	211.611	-37.896

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 69

LOADING MANUAL CALCULATIONS — PAGE 79

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 8.00 FR 95 — TRIM = 9.00 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.461	0.908	-0.035	3810.148	347.830	20.346
15.000	14.002	0.877	-0.051	5549.293	335.576	16.610
20.000	18.386	0.849	-0.068	7227.176	325.527	10.992
25.000	22.630	0.819	-0.087	8854.813	314.141	3.789
30.000	26.723	0.784	-0.110	10425.516	299.946	-4.462
35.000	30.642	0.764	-0.131	11925.246	291.041	-11.301
40.000	34.459	0.753	-0.143	13380.453	285.753	-14.885
45.000	38.225	0.748	-0.150	14809.219	282.492	-16.230
50.000	41.967	0.745	-0.155	16221.680	279.645	-16.874
55.000	45.690	0.743	-0.160	17619.902	277.341	-17.200
60.000	49.402	0.741	-0.163	19006.605	275.254	-17.264

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 69

LOADING MANUAL CALCULATIONS — PAGE 80

WATERMAN LASH — LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 8.00 FR 101 — TRIM = 9.00 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.972	0.997	-0.002	4146.383	406.779	41.930
15.000	14.958	0.980	-0.006	6180.273	404.420	46.740
20.000	19.859	0.958	-0.018	8202.375	398.032	44.427
25.000	24.646	0.929	-0.035	10192.535	387.654	38.334
30.000	29.291	0.892	-0.059	12130.805	372.443	29.945
35.000	33.752	0.871	-0.080	13993.023	362.927	22.689
40.000	38.109	0.860	-0.093	15807.660	357.379	19.112
45.000	42.411	0.855	-0.099	17594.559	354.025	18.128
50.000	46.689	0.851	-0.103	19364.688	350.934	17.856
55.000	50.946	0.849	-0.107	21119.359	348.352	17.920
60.000	55.191	0.847	-0.110	22861.117	345.891	18.224

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 11

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 81
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 69

TRIM = 8.00 TRIM = 9.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.001	1.001	-0.001	4167.223	409.603	42.857
15.000	15.007	0.999	-0.001	6215.234	417.727	50.401
20.000	20.001	1.001	-0.000	8303.871	429.341	57.248
25.000	25.005	1.001	-0.001	10450.574	440.181	63.678
30.000	30.008	0.999	-0.001	12651.480	451.753	72.704
35.000	35.001	1.000	0.000	14910.250	460.244	83.032
40.000	40.003	1.000	-0.000	17211.469	462.771	89.232
45.000	45.002	1.000	-0.000	19525.324	463.814	93.232
50.000	50.003	1.000	0.000	21844.398	463.574	96.640
55.000	55.003	1.000	0.000	24162.270	463.033	99.648
60.000	60.002	1.000	0.000	26477.438	462.006	102.496

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 82
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 72

TRIM = 9.00 TRIM = 10.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.413	0.067	-0.034	38.499	5.999	-2.789
15.000	0.748	0.065	-0.039	68.492	6.109	-3.294
20.000	1.075	0.061	-0.041	99.039	6.147	-3.643
25.000	1.382	0.058	-0.040	129.774	6.160	-3.974
30.000	1.673	0.057	-0.042	160.574	6.152	-4.371
35.000	1.959	0.058	-0.045	191.332	6.270	-4.727
40.000	2.251	0.061	-0.049	222.680	6.468	-5.047
45.000	2.555	0.064	-0.052	255.022	6.716	-5.342
50.000	2.872	0.067	-0.055	288.601	6.979	-5.640
55.000	3.205	0.070	-0.059	323.495	7.261	-5.942
60.000	3.554	0.073	-0.062	359.802	7.557	-6.246

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 83
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 72

TRIM = 9.00 TRIM = 10.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.521	0.208	-0.078	280.933	36.450	-11.966
15.000	2.561	0.206	-0.090	463.181	36.392	-14.078
20.000	3.591	0.201	-0.098	645.143	36.136	-15.631
25.000	4.597	0.195	-0.103	825.823	35.576	-17.123
30.000	5.573	0.190	-0.111	1003.705	34.678	-18.792
35.000	6.525	0.190	-0.118	1177.093	34.380	-20.011
40.000	7.474	0.192	-0.124	1348.991	34.457	-20.888
45.000	8.433	0.195	-0.129	1521.277	34.734	-21.528
50.000	9.407	0.198	-0.134	1694.947	35.047	-22.106
55.000	10.398	0.202	-0.139	1870.182	35.427	-22.657
60.000	11.408	0.206	-0.143	2047.315	35.848	-23.174

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 84
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 72

TRIM = 9.00 TRIM = 10.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.666	0.416	-0.107	972.379	103.165	-21.061
15.000	5.747	0.405	-0.126	1488.202	100.088	-25.002
20.000	7.771	0.393	-0.137	1988.642	97.455	-27.963
25.000	9.734	0.379	-0.147	2475.916	94.417	-31.005
30.000	11.630	0.365	-0.161	2948.000	90.687	-34.547
35.000	13.456	0.359	-0.172	3401.437	88.669	-36.879
40.000	15.254	0.358	-0.180	3844.784	87.699	-38.299
45.000	17.044	0.359	-0.185	4283.277	87.272	-39.101
50.000	18.840	0.361	-0.190	4719.637	86.959	-39.732
55.000	20.642	0.363	-0.195	5154.434	86.823	-40.287
60.000	22.456	0.366	-0.200	5588.551	86.785	-40.740

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 88
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 72

TRIM = 9.00 TRIM = 10.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.970	0.996	0.006	4188.313	407.740	45.365
15.000	14.951	0.978	-0.007	6227.016	403.958	46.517
20.000	19.840	0.954	-0.020	8246.805	396.813	43.842
25.000	24.611	0.924	-0.038	10230.867	385.976	37.581
30.000	29.232	0.888	-0.064	12160.750	370.992	27.545
35.000	33.673	0.869	-0.083	14015.711	362.212	21.446
40.000	38.016	0.859	-0.093	15826.773	357.182	18.527
45.000	42.312	0.855	-0.099	17612.688	353.971	17.792
50.000	46.585	0.851	-0.104	19382.543	350.947	17.568
55.000	50.839	0.848	-0.108	21137.277	348.413	17.472
60.000	55.080	0.847	-0.111	22879.344	346.090	17.760

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 87
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 72

TRIM = 9.00 TRIM = 10.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.426	0.905	-0.029	3830.494	347.082	22.459
15.000	13.951	0.873	-0.053	5565.902	334.453	15.973
20.000	18.318	0.845	-0.070	7238.168	324.086	10.271
25.000	22.543	0.814	-0.089	8858.602	312.491	3.035
30.000	26.613	0.780	-0.115	10421.055	298.578	-6.487
35.000	30.511	0.761	-0.133	11913.945	290.324	-12.354
40.000	34.316	0.752	-0.144	13365.566	285.484	-15.389
45.000	38.075	0.747	-0.150	14792.988	282.364	-16.516
50.000	41.811	0.744	-0.155	16204.805	279.579	-17.130
55.000	45.530	0.742	-0.160	17602.703	277.328	-17.568
60.000	49.239	0.741	-0.164	18989.344	275.357	-17.632

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 86
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 72

TRIM = 9.00 TRIM = 10.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.080	0.777	-0.069	3034.761	271.046	-1.672
15.000	11.963	0.747	-0.094	4389.992	259.590	-8.501
20.000	15.700	0.721	-0.111	5687.941	250.484	-14.011
25.000	19.305	0.693	-0.128	6940.359	240.766	-20.337
30.000	22.772	0.663	-0.152	8144.191	229.524	-28.189
35.000	26.088	0.647	-0.168	9291.809	222.865	-33.075
40.000	29.325	0.640	-0.178	10406.133	219.013	-35.694
45.000	32.525	0.637	-0.184	11501.199	216.618	-36.791
50.000	35.708	0.634	-0.189	12584.293	214.573	-37.457
55.000	38.880	0.634	-0.194	13657.160	212.995	-37.954
60.000	42.048	0.634	-0.198	14722.133	211.659	-38.173

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 85
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 72

TRIM = 9.00 TRIM = 10.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.369	0.561	-0.105	1673.255	162.736	-20.222
15.000	8.174	0.542	-0.127	2486.935	156.592	-25.412
20.000	10.886	0.524	-0.141	3269.894	151.591	-29.402
25.000	13.507	0.505	-0.154	4027.849	146.125	-33.673
30.000	16.032	0.485	-0.172	4758.473	139.689	-38.766
35.000	18.455	0.475	-0.185	5456.918	136.015	-42.006
40.000	20.828	0.471	-0.194	6136.988	134.026	-43.852
45.000	23.183	0.470	-0.199	6807.117	132.905	-44.758
50.000	25.533	0.470	-0.204	7471.641	131.979	-45.404
55.000	27.883	0.471	-0.209	8131.539	131.337	-45.934
60.000	30.239	0.473	-0.213	8788.223	130.839	-46.307

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 12

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 72

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 9.00 TRIM = 10.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.000	1.001	0.007	4210.078	411.112	46.319
15.000	15.006	0.999	-0.001	6265.637	419.096	50.911
20.000	20.001	1.001	-0.000	8361.117	430.627	58.112
25.000	25.005	1.000	-0.000	10514.254	441.986	64.768
30.000	30.007	0.999	-0.002	12724.184	453.819	73.808
35.000	35.001	1.000	0.000	14993.281	461.484	83.902
40.000	40.003	1.000	-0.000	17300.703	463.571	89.360
45.000	45.002	1.000	0.000	19618.559	464.496	93.360
50.000	50.003	1.000	0.000	21941.039	464.176	96.688
55.000	55.003	1.000	-0.000	24261.918	463.603	99.408
60.000	60.002	1.000	-0.000	26579.934	462.614	102.128

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 TRIM = 11.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.379	0.066	-0.034	35.710	5.898	-2.804
15.000	0.709	0.065	-0.039	65.198	6.039	-3.279
20.000	1.034	0.062	-0.041	95.395	6.081	-3.597
25.000	1.342	0.058	-0.041	125.800	6.081	-3.967
30.000	1.631	0.057	-0.042	156.204	6.080	-4.355
35.000	1.914	0.058	-0.045	186.606	6.205	-4.708
40.000	2.203	0.060	-0.048	217.633	6.409	-5.013
45.000	2.503	0.063	-0.051	249.680	6.656	-5.305
50.000	2.817	0.066	-0.055	282.962	6.918	-5.602
55.000	3.146	0.069	-0.058	317.553	7.200	-5.895
60.000	3.491	0.072	-0.062	353.556	7.500	-6.196

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 TRIM = 11.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.444	0.205	-0.079	268.967	36.027	-12.234
15.000	2.471	0.205	-0.091	449.103	36.082	-14.079
20.000	3.494	0.200	-0.097	629.512	35.838	-15.419
25.000	4.494	0.194	-0.104	808.699	35.243	-17.158
30.000	5.463	0.189	-0.111	984.913	34.434	-18.815
35.000	6.407	0.189	-0.118	1157.082	34.204	-20.056
40.000	7.350	0.191	-0.124	1328.103	34.329	-20.861
45.000	8.304	0.194	-0.129	1499.749	34.618	-21.508
50.000	9.273	0.197	-0.134	1672.841	34.937	-22.091
55.000	10.259	0.201	-0.138	1847.525	35.323	-22.607
60.000	11.265	0.205	-0.143	2024.141	35.767	-23.116

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 TRIM = 11.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.559	0.412	-0.111	951.318	102.376	-22.079
15.000	5.621	0.403	-0.126	1463.200	99.496	-25.156
20.000	7.634	0.390	-0.136	1960.679	96.846	-27.499
25.000	9.586	0.376	-0.149	2444.911	93.708	-31.202
30.000	11.468	0.363	-0.162	2913.453	90.221	-34.722
35.000	13.284	0.358	-0.173	3364.558	88.385	-37.115
40.000	15.074	0.357	-0.180	3806.485	87.539	-38.358
45.000	16.859	0.358	-0.185	4244.176	87.146	-39.176
50.000	18.649	0.360	-0.190	4679.906	86.848	-39.821
55.000	20.447	0.362	-0.195	5114.145	86.733	-40.286
60.000	22.257	0.365	-0.199	5547.809	86.753	-40.725

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 TRIM = 11.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.264	0.557	-0.111	1653.033	161.698	-21.928
15.000	8.048	0.540	-0.128	2461.523	155.794	-25.715
20.000	10.745	0.522	-0.139	3240.492	150.737	-28.722
25.000	13.353	0.501	-0.156	3994.176	145.106	-34.020
30.000	15.860	0.482	-0.173	4719.707	139.041	-39.079
35.000	18.270	0.473	-0.186	5414.910	135.646	-42.412
40.000	20.635	0.470	-0.194	6093.137	133.844	-43.989
45.000	22.983	0.469	-0.199	6762.359	132.776	-44.917
50.000	25.329	0.469	-0.205	7426.238	131.873	-45.585
55.000	27.674	0.470	-0.209	8085.605	131.262	-45.978
60.000	30.025	0.472	-0.213	8741.914	130.854	-46.336

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 TRIM = 11.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.011	0.772	-0.077	3033.089	269.681	-4.598
15.000	11.869	0.744	-0.095	4381.492	258.488	-9.058
20.000	15.589	0.718	-0.108	5673.930	249.219	-12.931
25.000	19.177	0.689	-0.131	6920.023	239.196	-20.951
30.000	22.620	0.660	-0.153	8116.004	228.547	-28.752
35.000	25.920	0.645	-0.169	9258.734	222.341	-33.785
40.000	29.147	0.639	-0.178	10370.441	218.794	-35.971
45.000	32.341	0.636	-0.185	11464.410	216.485	-37.105
50.000	35.519	0.633	-0.190	12546.836	214.474	-37.822
55.000	38.686	0.633	-0.194	13619.203	212.951	-38.078
60.000	41.850	0.633	-0.198	14683.961	211.760	-38.276

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 TRIM = 11.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.398	0.900	-0.037	3852.953	345.785	18.837
15.000	13.898	0.870	-0.055	5581.879	333.312	15.318
20.000	18.248	0.841	-0.067	7248.438	322.639	11.705
25.000	22.454	0.809	-0.092	8861.637	310.586	2.260
30.000	26.498	0.776	-0.117	10414.566	297.405	-7.212
35.000	30.378	0.759	-0.135	11901.590	289.717	-13.283
40.000	34.172	0.751	-0.145	13350.180	285.259	-15.762
45.000	37.925	0.746	-0.151	14776.473	282.241	-16.940
50.000	41.656	0.743	-0.156	16187.676	279.492	-17.628
55.000	45.370	0.741	-0.160	17585.133	277.315	-17.744
60.000	49.075	0.740	-0.163	18971.711	275.526	-17.824

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 TRIM = 11.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.975	0.994	-0.002	4233.676	407.971	42.077
15.000	14.944	0.975	-0.008	6273.531	403.422	46.224
20.000	19.820	0.951	-0.016	8290.645	395.561	45.868
25.000	24.573	0.919	-0.040	10268.449	383.969	36.791
30.000	29.168	0.884	-0.066	12188.297	369.772	26.742
35.000	33.590	0.867	-0.085	14037.156	361.628	20.341
40.000	37.923	0.858	-0.094	15845.301	357.035	18.096
45.000	42.213	0.854	-0.100	17630.477	353.926	17.280
50.000	46.482	0.850	-0.104	19400.109	350.928	16.960
55.000	50.731	0.848	-0.108	21154.750	348.470	17.232
60.000	54.969	0.847	-0.111	22897.102	346.365	17.536

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 13

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 73

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 10.00 FR 139

TRIM = 11.00 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.007	0.999	-0.001	4256.398	412.030	43.030
15.000	15.005	0.999	-0.001	6316.547	420.536	51.489
20.000	20.000	1.001	0.006	8419.230	431.958	61.689
25.000	25.004	1.000	-0.000	10579.023	443.794	65.821
30.000	30.005	0.999	0.000	12797.992	455.838	76.376
35.000	35.001	1.000	-0.000	15077.184	462.576	84.590
40.000	40.003	1.000	0.000	17390.063	464.371	89.616
45.000	45.002	1.000	-0.000	19711.918	465.161	93.264
50.000	50.004	1.000	-0.000	22037.727	464.720	96.288
55.000	55.003	1.000	0.000	24361.324	464.147	99.440
60.000	60.002	1.000	0.000	26682.063	462.973	102.128

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 FR 52

TRIM = 12.00 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.345	0.065	-0.034	32.905	5.803	-2.766
15.000	0.670	0.065	-0.039	61.919	5.976	-3.261
20.000	0.994	0.061	-0.041	91.798	6.007	-3.631
25.000	1.301	0.058	-0.041	121.833	6.003	-3.961
30.000	1.589	0.056	-0.042	151.849	6.010	-4.347
35.000	1.869	0.057	-0.045	181.897	6.145	-4.687
40.000	2.154	0.059	-0.048	212.621	6.351	-4.980
45.000	2.451	0.062	-0.051	244.374	6.597	-5.267
50.000	2.762	0.065	-0.054	277.360	6.860	-5.557
55.000	3.088	0.068	-0.058	311.658	7.140	-5.852
60.000	3.429	0.072	-0.061	347.360	7.443	-6.150

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 FR 61

TRIM = 12.00 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.365	0.203	-0.078	256.733	35.658	-12.189
15.000	2.380	0.203	-0.091	435.624	35.814	-14.081
20.000	3.397	0.199	-0.099	614.092	35.490	-15.689
25.000	4.390	0.192	-0.104	791.541	34.911	-17.195
30.000	5.352	0.187	-0.111	966.098	34.186	-18.880
35.000	6.289	0.187	-0.118	1137.026	34.043	-20.074
40.000	7.226	0.190	-0.123	1307.242	34.200	-20.847
45.000	8.175	0.193	-0.128	1478.241	34.502	-21.474
50.000	9.139	0.196	-0.133	1650.750	34.834	-22.037
55.000	10.121	0.200	-0.138	1824.918	35.221	-22.572
60.000	11.122	0.205	-0.142	2001.025	35.686	-23.070

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 FR 70

TRIM = 12.00 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.448	0.409	-0.110	929.239	101.761	-22.204
15.000	5.495	0.401	-0.127	1438.044	99.027	-25.319
20.000	7.498	0.388	-0.139	1933.180	96.106	-28.353
25.000	9.438	0.374	-0.150	2413.709	93.004	-31.404
30.000	11.306	0.361	-0.163	2878.731	89.742	-35.003
35.000	13.112	0.357	-0.173	3327.443	88.137	-37.285
40.000	14.894	0.356	-0.180	3768.127	87.375	-38.439
45.000	16.674	0.357	-0.185	4205.000	87.017	-39.212
50.000	18.459	0.359	-0.190	4640.086	86.755	-39.811
55.000	20.253	0.361	-0.194	5073.859	86.645	-40.328
60.000	22.058	0.364	-0.199	5507.086	86.721	-40.743

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 FR 76

TRIM = 12.00 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.153	0.553	-0.111	1631.105	160.941	-22.227
15.000	7.920	0.537	-0.129	2435.808	155.192	-26.033
20.000	10.606	0.518	-0.144	3211.770	149.677	-30.102
25.000	13.197	0.498	-0.157	3960.156	144.095	-34.373
30.000	15.687	0.479	-0.174	4680.629	138.374	-39.555
35.000	18.084	0.471	-0.187	5372.500	135.330	-42.718
40.000	20.441	0.469	-0.194	6049.148	133.659	-44.157
45.000	22.784	0.468	-0.199	6717.441	132.642	-45.019
50.000	25.124	0.468	-0.204	7380.652	131.795	-45.616
55.000	27.465	0.469	-0.209	8039.625	131.191	-46.087
60.000	29.813	0.472	-0.213	8695.578	130.870	-46.402

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 FR 85

TRIM = 12.00 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	7.934	0.768	-0.078	3028.491	268.789	-5.183
15.000	11.774	0.741	-0.097	4372.434	257.713	-9.644
20.000	15.481	0.713	-0.115	5661.000	247.615	-15.261
25.000	19.046	0.684	-0.133	6899.074	237.635	-21.584
30.000	22.467	0.657	-0.155	8087.250	227.540	-29.587
35.000	25.751	0.644	-0.171	9224.949	221.904	-34.348
40.000	28.969	0.637	-0.179	10334.469	218.567	-36.308
45.000	32.156	0.635	-0.185	11427.305	216.342	-37.325
50.000	35.329	0.633	-0.190	12509.012	214.423	-37.917
55.000	38.492	0.632	-0.194	13581.129	212.911	-38.313
60.000	41.652	0.633	-0.198	14645.684	211.863	-38.451

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 FR 95

TRIM = 12.00 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.360	0.897	-0.038	3871.790	345.081	18.186
15.000	13.843	0.867	-0.056	5597.195	332.590	14.619
20.000	18.181	0.836	-0.075	7260.145	320.750	8.726
25.000	22.362	0.804	-0.094	8863.895	308.692	1.448
30.000	26.381	0.772	-0.120	10407.355	296.190	-8.309
35.000	30.243	0.757	-0.137	11888.309	289.221	-14.036
40.000	34.027	0.749	-0.145	13334.418	285.023	-16.216
45.000	37.774	0.745	-0.151	14759.531	282.103	-17.254
50.000	41.500	0.742	-0.156	16170.047	279.469	-17.781
55.000	45.210	0.740	-0.160	17567.391	277.299	-18.080
60.000	48.912	0.740	-0.164	18953.887	275.699	-18.064

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 FR 101

TRIM = 12.00 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.973	0.993	-0.002	4275.754	408.800	42.116
15.000	14.936	0.974	-0.009	6319.758	403.351	45.837
20.000	19.804	0.946	-0.024	8336.512	393.745	42.496
25.000	24.535	0.914	-0.043	10305.242	381.959	35.964
30.000	29.101	0.881	-0.069	12215.039	368.492	25.482
35.000	33.505	0.865	-0.087	14057.500	361.179	19.463
40.000	37.829	0.857	-0.095	15863.395	356.872	17.569
45.000	42.113	0.853	-0.100	17647.758	353.862	16.912
50.000	46.377	0.849	-0.104	19417.070	350.982	16.768
55.000	50.624	0.847	-0.108	21171.980	348.531	16.832
60.000	54.859	0.846	-0.111	22914.637	346.643	17.200

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 14

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 74

LOADING MANUAL CALCULATIONS — PAGE 105

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 11.00 TRIM = 12.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.006	0.999	-0.001	4299.426	413.722	43.088
15.000	15.004	1.001	-0.001	6368.035	422.576	51.997
20.000	20.006	1.000	-0.001	8480.918	432.785	59.604
25.000	25.004	1.000	-0.000	10644.844	445.905	66.933
30.000	30.005	0.999	-0.000	12874.367	457.481	77.129
35.000	35.001	1.000	-0.000	15161.773	463.581	85.102
40.000	40.003	1.000	-0.000	17479.680	465.101	89.744
45.000	45.002	1.000	0.000	19805.184	465.766	93.328
50.000	50.003	1.000	0.000	22134.016	465.350	96.480
55.000	55.003	1.000	-0.000	24460.766	464.685	99.216
60.000	60.002	1.000	0.000	26784.191	463.341	101.952

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS — PAGE 106

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 TRIM = 13.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.311	0.064	-0.033	30.139	5.704	-2.727
15.000	0.630	0.064	-0.039	58.658	5.902	-3.242
20.000	0.952	0.061	-0.042	88.167	5.941	-3.622
25.000	1.260	0.057	-0.042	117.872	5.926	-3.955
30.000	1.546	0.055	-0.043	147.502	5.942	-4.335
35.000	1.824	0.057	-0.045	177.211	6.086	-4.664
40.000	2.106	0.059	-0.047	207.640	6.293	-4.947
45.000	2.400	0.062	-0.051	239.107	6.539	-5.230
50.000	2.708	0.064	-0.054	271.803	6.800	-5.515
55.000	3.030	0.068	-0.057	305.806	7.081	-5.807
60.000	3.368	0.071	-0.061	341.210	7.385	-6.107

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS — PAGE 107

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 TRIM = 13.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.287	0.201	-0.077	244.543	35.280	-12.168
15.000	2.290	0.202	-0.090	420.944	35.492	-14.081
20.000	3.298	0.197	-0.099	598.404	35.189	-15.710
25.000	4.286	0.191	-0.105	774.346	34.574	-17.232
30.000	5.240	0.186	-0.112	947.218	33.947	-18.916
35.000	6.171	0.186	-0.118	1116.952	33.889	-20.085
40.000	7.103	0.189	-0.123	1286.395	34.074	-20.824
45.000	8.047	0.192	-0.128	1456.767	34.389	-21.450
50.000	9.006	0.195	-0.132	1628.713	34.727	-22.004
55.000	9.983	0.199	-0.137	1802.346	35.122	-22.528
60.000	10.980	0.204	-0.142	1977.955	35.603	-23.043

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS — PAGE 108

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 TRIM = 13.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.338	0.406	-0.111	907.035	101.138	-22.419
15.000	5.368	0.398	-0.127	1412.725	98.420	-25.489
20.000	7.359	0.386	-0.140	1904.827	95.496	-28.532
25.000	9.288	0.371	-0.151	2382.305	92.285	-31.612
30.000	11.143	0.359	-0.164	2843.728	89.286	-35.211
35.000	12.939	0.355	-0.173	3290.158	87.906	-37.431
40.000	14.715	0.355	-0.180	3729.688	87.221	-38.504
45.000	16.489	0.356	-0.185	4165.789	86.897	-39.276
50.000	18.269	0.358	-0.189	4600.273	86.652	-39.853
55.000	20.058	0.360	-0.194	5033.531	86.562	-40.345
60.000	21.859	0.363	-0.198	5466.344	86.681	-40.804

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS — PAGE 109

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 TRIM = 13.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	5.042	0.550	-0.111	1608.878	160.179	-22.671
15.000	7.791	0.534	-0.130	2409.775	154.379	-26.368
20.000	10.462	0.516	-0.145	3181.668	148.823	-30.432
25.000	13.040	0.495	-0.159	3925.783	143.058	-34.742
30.000	15.513	0.477	-0.176	4641.070	137.742	-39.919
35.000	17.898	0.470	-0.187	5329.781	135.042	-42.988
40.000	20.247	0.467	-0.194	6004.992	133.486	-44.301
45.000	22.584	0.467	-0.199	6672.426	132.523	-45.161
50.000	24.920	0.467	-0.204	7335.035	131.700	-45.725
55.000	27.257	0.469	-0.208	7993.539	131.128	-46.168
60.000	29.600	0.471	-0.213	8649.176	130.872	-46.548

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS — PAGE 110

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 TRIM = 13.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	7.856	0.764	-0.079	3023.308	267.896	-6.020
15.000	11.677	0.738	-0.098	4362.789	256.590	-10.268
20.000	15.366	0.710	-0.117	5645.738	246.350	-15.863
25.000	18.914	0.680	-0.135	6877.488	236.035	-22.238
30.000	22.312	0.654	-0.157	8057.664	226.588	-30.230
35.000	25.580	0.642	-0.172	9190.602	221.512	-34.838
40.000	28.790	0.636	-0.179	10298.160	218.364	-36.594
45.000	31.971	0.634	-0.185	11389.980	216.223	-37.618
50.000	35.139	0.632	-0.190	12471.098	214.344	-38.159
55.000	38.298	0.631	-0.194	13542.813	212.884	-38.495
60.000	41.454	0.632	-0.198	14607.234	211.943	-38.736

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS — PAGE 111

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 TRIM = 13.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.322	0.893	-0.040	3889.976	344.368	17.197
15.000	13.787	0.864	-0.058	5611.813	331.411	13.864
20.000	18.106	0.832	-0.077	7268.871	319.294	7.973
25.000	22.268	0.799	-0.097	8865.344	306.741	0.615
30.000	26.261	0.769	-0.122	10399.047	295.045	-9.143
35.000	30.106	0.755	-0.138	11874.273	288.785	-14.680
40.000	33.882	0.748	-0.146	13318.199	284.815	-16.611
45.000	37.622	0.744	-0.152	14742.277	281.998	-17.650
50.000	41.344	0.741	-0.156	16152.266	279.409	-18.117
55.000	45.050	0.740	-0.160	17549.309	277.302	-18.352
60.000	48.748	0.740	-0.164	18935.820	275.843	-18.448

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS — PAGE 112

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 TRIM = 13.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.971	0.991	-0.003	4317.871	409.544	41.814
15.000	14.926	0.971	-0.011	6365.594	402.683	45.342
20.000	19.780	0.942	-0.026	8379.008	392.439	41.816
25.000	24.491	0.908	-0.045	10341.203	379.863	35.087
30.000	29.032	0.877	-0.072	12240.520	367.288	24.533
35.000	33.418	0.863	-0.088	14076.961	360.601	18.710
40.000	37.734	0.856	-0.096	15880.965	356.741	17.101
45.000	42.013	0.852	-0.101	17664.672	353.833	16.432
50.000	46.273	0.849	-0.105	19433.840	350.995	16.352
55.000	50.516	0.846	-0.108	21188.813	348.605	16.512
60.000	54.748	0.846	-0.111	22931.840	346.886	16.720

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 15

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 75

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 113

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 12.00 — FR 139 / TRIM = 13.00 — FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.005	0.999	-0.002	4342.516	415.503	42.847
15.000	15.003	1.001	-0.001	6420.031	424.098	52.476
20.000	20.006	1.000	-0.001	8540.523	434.250	60.460
25.000	25.004	1.000	-0.000	10711.777	447.944	68.199
30.000	30.005	0.999	-0.000	12951.500	459.075	78.249
35.000	35.001	1.000	-0.000	15246.875	464.509	85.489
40.000	40.003	1.000	0.000	17569.422	465.817	89.840
45.000	45.002	1.000	-0.000	19898.512	466.397	93.200
50.000	50.003	1.000	0.000	22230.492	465.897	96.320
55.000	55.003	1.000	0.000	24559.980	465.232	99.120
60.000	60.002	1.000	-0.000	26886.141	463.683	101.552

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 114

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 — FR 52 / TRIM = 14.00 — FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.278	0.063	-0.032	27.412	5.601	-2.679
15.000	0.591	0.064	-0.039	55.416	5.826	-3.222
20.000	0.911	0.061	-0.042	84.545	5.875	-3.614
25.000	1.218	0.057	-0.043	113.917	5.850	-3.952
30.000	1.504	0.055	-0.043	143.167	5.876	-4.327
35.000	1.779	0.056	-0.045	172.547	6.029	-4.637
40.000	2.059	0.058	-0.047	202.694	6.237	-4.915
45.000	2.350	0.061	-0.050	233.878	6.482	-5.192
50.000	2.654	0.064	-0.053	266.288	6.742	-5.477
55.000	2.973	0.067	-0.057	299.998	7.021	-5.765
60.000	3.308	0.070	-0.060	335.103	7.328	-6.064

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 115

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 — FR 61 / TRIM = 14.00 — FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.209	0.198	-0.077	232.375	34.898	-12.125
15.000	2.199	0.200	-0.090	406.863	35.166	-14.081
20.000	3.199	0.196	-0.099	582.694	34.884	-15.737
25.000	4.181	0.189	-0.106	757.115	34.237	-17.280
30.000	5.128	0.185	-0.113	928.302	33.713	-18.968
35.000	6.053	0.185	-0.118	1096.867	33.741	-20.072
40.000	6.980	0.188	-0.123	1265.571	33.949	-20.803
45.000	7.919	0.191	-0.127	1435.317	34.278	-21.417
50.000	8.874	0.194	-0.132	1606.709	34.622	-21.979
55.000	9.846	0.198	-0.136	1779.818	35.019	-22.494
60.000	10.838	0.203	-0.141	1954.912	35.524	-23.018

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 116

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 — FR 70 / TRIM = 14.00 — FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.227	0.403	-0.110	884.616	100.524	-22.588
15.000	5.241	0.396	-0.128	1387.236	97.812	-25.670
20.000	7.219	0.384	-0.141	1876.295	94.880	-28.737
25.000	9.137	0.369	-0.153	2350.693	91.565	-31.852
30.000	10.979	0.357	-0.165	2808.517	88.842	-35.461
35.000	12.765	0.354	-0.174	3252.727	87.691	-37.513
40.000	14.535	0.354	-0.179	3691.184	87.066	-38.572
45.000	16.304	0.355	-0.185	4126.512	86.782	-39.318
50.000	18.080	0.357	-0.189	4560.422	86.553	-39.916
55.000	19.864	0.359	-0.194	4993.188	86.470	-40.388
60.000	21.661	0.363	-0.198	5425.539	86.652	-40.868

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 117

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 — FR 76 / TRIM = 14.00 — FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.931	0.546	-0.112	1586.207	159.440	-23.054
15.000	7.661	0.531	-0.130	2383.407	153.566	-26.723
20.000	10.317	0.513	-0.147	3151.236	147.961	-30.805
25.000	12.881	0.491	-0.161	3891.041	142.023	-35.155
30.000	15.337	0.475	-0.177	4601.152	137.128	-40.352
35.000	17.710	0.469	-0.188	5286.793	134.780	-43.159
40.000	20.053	0.466	-0.194	5960.691	133.314	-44.451
45.000	22.385	0.466	-0.199	6627.262	132.410	-45.272
50.000	24.716	0.467	-0.204	7289.313	131.612	-45.868
55.000	27.048	0.468	-0.208	7947.371	131.052	-46.270
60.000	29.387	0.470	-0.213	8602.629	130.892	-46.687

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 118

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 — FR 85 / TRIM = 14.00 — FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	7.777	0.760	-0.080	3017.288	267.047	-6.766
15.000	11.579	0.734	-0.100	4352.520	255.471	-10.923
20.000	15.249	0.706	-0.119	5629.875	245.075	-16.534
25.000	18.778	0.675	-0.137	6855.250	234.436	-22.973
30.000	22.154	0.651	-0.160	8027.434	225.666	-30.998
35.000	25.408	0.640	-0.173	9155.766	221.161	-35.181
40.000	28.611	0.635	-0.180	10261.566	218.159	-36.886
45.000	31.786	0.633	-0.185	11352.359	216.115	-37.851
50.000	34.950	0.631	-0.190	12432.938	214.276	-38.443
55.000	38.104	0.630	-0.194	13504.320	212.836	-38.729
60.000	41.257	0.632	-0.198	14568.496	212.053	-39.022

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 119

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 — FR 95 / TRIM = 14.00 — FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.282	0.889	-0.041	3907.173	343.701	16.319
15.000	13.729	0.860	-0.060	5625.680	330.233	13.061
20.000	18.029	0.828	-0.079	7276.844	317.823	7.131
25.000	22.171	0.794	-0.100	8865.957	304.789	-0.337
30.000	26.139	0.766	-0.125	10389.902	293.938	-10.145
35.000	29.968	0.754	-0.139	11859.594	288.399	-15.140
40.000	33.736	0.747	-0.147	13301.590	284.607	-17.005
45.000	37.471	0.743	-0.152	14724.629	281.904	-17.978
50.000	41.188	0.740	-0.157	16134.148	279.362	-18.505
55.000	44.890	0.739	-0.161	17530.957	277.283	-18.672
60.000	48.584	0.740	-0.164	18917.375	276.019	-18.864

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 120

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 — FR 101 / TRIM = 14.00 — FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.968	0.990	-0.003	4359.684	410.250	41.925
15.000	14.916	0.968	-0.012	6410.934	401.978	44.757
20.000	19.754	0.938	-0.029	8420.824	391.093	41.011
25.000	24.445	0.903	-0.048	10376.293	377.752	34.063
30.000	28.961	0.874	-0.075	12265.055	366.124	23.376
35.000	33.330	0.862	-0.089	14095.672	360.479	18.198
40.000	37.638	0.855	-0.096	15898.066	356.607	16.647
45.000	41.912	0.851	-0.101	17681.102	353.817	16.048
50.000	46.168	0.848	-0.105	19450.191	351.027	15.888
55.000	50.407	0.846	-0.109	21205.324	348.646	16.080
60.000	54.636	0.846	-0.112	22948.559	347.171	16.176

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 76

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 13.00 TRIM = 14.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.004	1.000	-0.001	4385.363	417.429	43.133
15.000	15.002	1.001	-0.001	6472.508	425.695	52.961
20.000	20.005	1.000	-0.001	8600.984	435.798	61.221
25.000	25.004	1.000	0.000	10779.977	449.954	69.705
30.000	30.005	0.999	-0.000	13029.746	460.523	79.257
35.000	35.001	1.000	0.000	15332.363	465.379	85.980
40.000	40.003	1.000	0.000	17659.262	466.490	89.920
45.000	45.002	1.000	-0.000	19991.711	467.021	93.168
50.000	50.004	1.000	-0.000	22326.813	466.458	96.048
55.000	55.003	1.000	-0.000	24659.102	465.718	98.848
60.000	60.002	1.000	-0.001	26987.695	464.105	101.104

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 77

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 14.00 TRIM = 15.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.246	0.061	-0.031	24.733	5.492	-2.627
15.000	0.552	0.063	-0.039	52.193	5.747	-3.200
20.000	0.869	0.061	-0.042	80.931	5.807	-3.603
25.000	1.175	0.057	-0.043	109.965	5.775	-3.958
30.000	1.461	0.055	-0.043	138.841	5.814	-4.316
35.000	1.735	0.055	-0.044	167.910	5.974	-4.613
40.000	2.012	0.058	-0.047	197.779	6.181	-4.883
45.000	2.300	0.060	-0.050	228.685	6.425	-5.153
50.000	2.601	0.063	-0.053	260.811	6.685	-5.434
55.000	2.916	0.066	-0.056	294.233	6.961	-5.718
60.000	3.248	0.070	-0.059	329.039	7.273	-5.993

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 77

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 14.00 TRIM = 15.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.133	0.195	-0.075	220.250	34.506	-12.079
15.000	2.109	0.198	-0.090	392.782	34.835	-14.083
20.000	3.100	0.195	-0.100	566.957	34.576	-15.757
25.000	4.075	0.188	-0.107	739.835	33.900	-17.382
30.000	5.016	0.184	-0.113	909.334	33.492	-19.003
35.000	5.935	0.184	-0.118	1076.795	33.595	-20.064
40.000	6.857	0.187	-0.122	1244.768	33.826	-20.783
45.000	7.791	0.190	-0.127	1413.900	34.166	-21.378
50.000	8.742	0.194	-0.131	1584.730	34.519	-21.931
55.000	9.710	0.197	-0.136	1757.324	34.914	-22.438
60.000	10.697	0.202	-0.140	1931.894	35.446	-22.849

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 77

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 14.00 TRIM = 15.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.117	0.399	-0.110	862.028	99.908	-22.772
15.000	5.113	0.393	-0.128	1361.566	97.198	-25.866
20.000	7.077	0.381	-0.142	1847.558	94.257	-28.930
25.000	8.984	0.366	-0.155	2318.841	90.843	-32.240
30.000	10.814	0.355	-0.166	2773.056	88.432	-35.671
35.000	12.592	0.353	-0.174	3215.214	87.480	-37.617
40.000	14.356	0.353	-0.179	3652.612	86.917	-38.646
45.000	16.120	0.354	-0.184	4087.197	86.662	-39.340
50.000	17.891	0.356	-0.189	4520.504	86.459	-39.920
55.000	19.671	0.358	-0.193	4952.801	86.374	-40.374
60.000	21.463	0.362	-0.197	5384.672	86.624	-40.586

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 77

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 14.00 TRIM = 15.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.819	0.542	-0.112	1563.153	158.706	-23.466
15.000	7.531	0.528	-0.131	2356.684	152.749	-27.106
20.000	10.171	0.510	-0.148	3120.431	147.091	-31.163
25.000	12.720	0.488	-0.164	3855.886	140.983	-35.806
30.000	15.160	0.473	-0.179	4560.801	136.566	-40.720
35.000	17.523	0.467	-0.188	5243.633	134.521	-43.364
40.000	19.859	0.465	-0.194	5916.238	133.150	-44.610
45.000	22.188	0.465	-0.199	6581.992	132.291	-45.349
50.000	24.512	0.466	-0.204	7243.445	131.531	-45.920
55.000	26.840	0.467	-0.208	7901.102	130.968	-46.299
60.000	29.175	0.470	-0.211	8555.941	130.912	-46.314

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 77

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 14.00 TRIM = 15.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	7.697	0.756	-0.081	3010.522	266.216	-7.575
15.000	11.479	0.730	-0.101	4341.598	254.348	-11.637
20.000	15.130	0.702	-0.121	5613.340	243.788	-17.187
25.000	18.641	0.671	-0.141	6832.277	232.831	-24.097
30.000	21.995	0.648	-0.162	7996.434	224.830	-31.656
35.000	25.236	0.639	-0.173	9120.582	220.820	-35.562
40.000	28.431	0.634	-0.180	10224.680	217.966	-37.207
45.000	31.601	0.632	-0.185	11314.512	215.997	-38.027
50.000	34.759	0.630	-0.190	12394.492	214.219	-38.583
55.000	37.910	0.630	-0.194	13465.590	212.777	-38.824
60.000	41.058	0.632	-0.196	14529.477	212.163	-38.473

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 77

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 14.00 TRIM = 15.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.240	0.886	-0.042	3923.492	343.050	15.342
15.000	13.669	0.856	-0.061	5638.738	329.047	12.181
20.000	17.949	0.824	-0.081	7283.973	316.329	6.306
25.000	22.072	0.789	-0.104	8865.621	302.827	-1.784
30.000	26.015	0.763	-0.127	10379.758	292.938	-11.008
35.000	29.829	0.752	-0.140	11844.453	288.026	-15.645
40.000	33.589	0.746	-0.147	13284.586	284.413	-17.445
45.000	37.318	0.742	-0.152	14706.648	281.799	-18.227
50.000	41.031	0.740	-0.157	16115.645	279.328	-18.718
55.000	44.730	0.738	-0.160	17512.285	277.245	-18.816
60.000	48.420	0.739	-0.162	18898.512	276.201	-18.176

LOADING MANUAL CALCULATIONS

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 77

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 14.00 TRIM = 15.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.965	0.988	-0.003	4401.609	410.816	41.609
15.000	14.903	0.964	-0.014	6455.691	401.229	44.050
20.000	19.725	0.934	-0.031	8461.836	389.704	40.221
25.000	24.397	0.898	-0.053	10410.355	375.615	32.402
30.000	28.886	0.871	-0.077	12288.430	365.088	22.389
35.000	33.241	0.860	-0.090	14113.871	360.168	17.613
40.000	37.542	0.854	-0.097	15914.715	356.487	16.121
45.000	41.811	0.850	-0.102	17697.148	353.785	15.744
50.000	46.063	0.847	-0.105	19466.078	351.065	15.616
55.000	50.299	0.845	-0.108	21221.406	348.666	15.888
60.000	54.524	0.846	-0.109	22964.734	347.462	17.056

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO.29-01-16
FRAME NO.17

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 129
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 77

TRIM = 14.00 TRIM = 15.00
FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.003	1.000	-0.001	4428.496	419.395	43.088
15.000	15.001	1.001	-0.001	6525.469	427.347	53.405
20.000	20.004	1.000	-0.000	8662.203	437.495	62.127
25.000	25.004	1.000	-0.000	10849.680	451.865	70.992
30.000	30.004	0.999	-0.000	13109.004	461.868	80.545
35.000	35.001	1.000	-0.000	15418.344	466.167	86.264
40.000	40.003	1.000	-0.000	17749.184	467.139	89.872
45.000	45.002	1.000	0.000	20084.879	467.597	93.232
50.000	50.003	1.000	-0.000	22422.863	467.018	96.080
55.000	55.003	1.000	0.000	24757.949	466.169	98.896
60.000	60.001	1.000	0.001	27088.797	464.595	101.680

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 130
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 78

TRIM = 15.00 TRIM = 16.00
FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.215	0.060	-0.030	22.107	5.377	-2.566
15.000	0.513	0.063	-0.038	48.993	5.667	-3.174
20.000	0.827	0.061	-0.042	77.328	5.736	-3.592
25.000	1.132	0.057	-0.044	106.007	5.703	-3.964
30.000	1.417	0.055	-0.044	134.524	5.754	-4.310
35.000	1.690	0.055	-0.044	163.297	5.920	-4.587
40.000	1.965	0.057	-0.046	192.896	6.127	-4.848
45.000	2.250	0.060	-0.049	223.532	6.369	-5.116
50.000	2.548	0.062	-0.052	255.377	6.628	-5.405
55.000	2.860	0.066	-0.055	288.515	6.906	-5.675
60.000	3.188	0.069	-0.059	323.046	7.215	-5.945

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 131
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 78

TRIM = 15.00 TRIM = 16.00
FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	1.057	0.192	-0.074	208.171	34.106	-12.021
15.000	2.019	0.196	-0.090	378.699	34.500	-14.077
20.000	3.000	0.194	-0.100	551.200	34.251	-15.784
25.000	3.968	0.187	-0.108	722.453	33.575	-17.489
30.000	4.902	0.183	-0.114	890.330	33.280	-19.062
35.000	5.817	0.184	-0.118	1056.731	33.451	-20.044
40.000	6.735	0.186	-0.122	1223.985	33.707	-20.742
45.000	7.664	0.189	-0.126	1392.522	34.055	-21.344
50.000	8.610	0.193	-0.131	1562.799	34.417	-21.955
55.000	9.574	0.197	-0.135	1734.886	34.832	-22.396
60.000	10.557	0.201	-0.139	1909.045	35.356	-22.793

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 132
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 78

TRIM = 15.00 TRIM = 16.00
FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	3.007	0.396	-0.109	839.256	99.289	-22.948
15.000	4.985	0.390	-0.128	1335.700	96.586	-26.049
20.000	6.935	0.379	-0.143	1818.628	93.595	-29.149
25.000	8.829	0.364	-0.157	2286.601	90.157	-32.648
30.000	10.648	0.354	-0.168	2737.385	88.042	-35.944
35.000	12.418	0.352	-0.174	3177.597	87.274	-37.680
40.000	14.176	0.352	-0.179	3613.966	86.778	-38.658
45.000	15.935	0.353	-0.184	4047.857	86.546	-39.380
50.000	17.702	0.355	-0.189	4480.586	86.368	-40.107
55.000	19.478	0.358	-0.193	4912.426	86.332	-40.400
60.000	21.266	0.361	-0.196	5344.086	86.569	-40.568

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 136
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 78

TRIM = 15.00 TRIM = 16.00
FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.962	0.986	-0.003	4443.219	411.305	41.132
15.000	14.890	0.961	-0.015	6499.742	400.463	43.340
20.000	19.694	0.930	-0.033	8502.059	388.140	39.300
25.000	24.345	0.893	-0.057	10442.758	373.612	30.632
30.000	28.809	0.868	-0.081	12310.816	364.133	21.109
35.000	33.150	0.859	-0.091	14131.484	359.870	17.174
40.000	37.445	0.853	-0.097	15930.836	356.412	15.879
45.000	41.709	0.850	-0.102	17712.895	353.760	15.344
50.000	45.957	0.847	-0.107	19481.695	351.120	14.608
55.000	50.190	0.845	-0.109	21237.293	348.899	15.536
60.000	54.415	0.846	-0.109	22961.789	347.638	16.880

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 135
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 78

TRIM = 15.00 TRIM = 16.00
FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.198	0.882	-0.044	3938.834	342.417	14.335
15.000	13.608	0.852	-0.063	5650.922	327.872	11.323
20.000	17.868	0.820	-0.084	7290.281	314.711	5.388
25.000	21.968	0.784	-0.108	8863.836	300.983	-3.314
30.000	25.887	0.760	-0.130	10368.750	292.011	-12.098
35.000	29.689	0.751	-0.141	11828.809	287.666	-16.033
40.000	33.442	0.745	-0.147	13267.141	284.257	-17.664
45.000	37.166	0.742	-0.153	14688.422	281.701	-18.564
50.000	40.874	0.739	-0.158	16096.926	279.309	-19.529
55.000	44.569	0.738	-0.161	17493.469	277.373	-19.104
60.000	48.258	0.739	-0.162	18880.336	276.294	-18.320

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 134
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 78

TRIM = 15.00 TRIM = 16.00
FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	7.616	0.752	-0.082	3002.947	265.403	-8.399
15.000	11.377	0.726	-0.103	4329.961	253.238	-12.328
20.000	15.009	0.698	-0.123	5596.152	242.406	-17.907
25.000	18.500	0.667	-0.145	6808.180	231.320	-25.277
30.000	21.833	0.646	-0.164	7964.777	224.048	-32.490
35.000	25.062	0.638	-0.174	9085.020	220.491	-35.848
40.000	28.250	0.633	-0.180	10187.473	217.802	-37.369
45.000	31.415	0.631	-0.186	11276.484	215.886	-38.268
50.000	34.569	0.629	-0.191	12355.910	214.171	-39.183
55.000	37.717	0.629	-0.194	13426.766	212.847	-39.022
60.000	40.862	0.631	-0.196	14491.004	212.205	-38.554

DATE 10/10/80 — LOADING MANUAL CALCULATIONS — PAGE 133
JOB NO. C7-1000
DRWG. NO. 29-01-16 — WATERMAN LASH
TAPE NO. 750 — LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 78

TRIM = 15.00 TRIM = 16.00
FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.707	0.538	-0.112	1539.687	157.978	-23.878
15.000	7.399	0.525	-0.132	2329.578	151.938	-27.472
20.000	10.023	0.507	-0.149	3089.268	146.162	-31.561
25.000	12.556	0.485	-0.166	3820.080	140.001	-36.486
30.000	14.981	0.471	-0.181	4520.082	136.038	-41.189
35.000	17.335	0.466	-0.189	5200.270	134.272	-43.505
40.000	19.665	0.464	-0.194	5871.629	133.002	-44.673
45.000	21.986	0.464	-0.199	6536.641	132.176	-45.457
50.000	24.308	0.465	-0.205	7197.523	131.456	-46.252
55.000	26.632	0.466	-0.208	7854.801	130.965	-46.388
60.000	28.964	0.469	-0.210	8509.629	130.892	-46.329

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 18

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 78

LOADING MANUAL CALCULATIONS — PAGE 137

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 15.00 TRIM = 16.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.002	1.000	-0.001	4471.582	421.458	43.031
15.000	15.001	1.001	-0.000	6578.875	429.091	53.871
20.000	20.004	1.000	-0.000	8724.332	439.268	62.874
25.000	25.003	1.000	-0.000	10920.672	453.775	72.821
30.000	30.004	0.999	-0.001	13189.551	463.012	81.510
35.000	35.001	1.000	0.000	15504.609	466.889	86.623
40.000	40.002	1.000	0.000	17839.055	467.811	90.144
45.000	45.002	1.000	0.000	20178.109	468.166	93.152
50.000	50.003	1.000	-0.002	22518.941	467.581	95.088
55.000	55.003	1.000	0.000	24856.848	466.726	98.704
60.000	60.002	1.000	0.000	27190.477	465.152	100.480

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS — PAGE 138

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.737	0.071	0.036	65.000	6.707	3.017
15.000	1.092	0.066	0.037	98.533	6.715	3.422
20.000	1.419	0.063	0.036	132.108	6.752	3.710
25.000	1.735	0.064	0.039	165.868	6.820	4.054
30.000	2.053	0.065	0.043	199.966	6.914	4.433
35.000	2.377	0.066	0.047	234.534	6.973	4.835
40.000	2.706	0.067	0.052	269.398	7.079	5.293
45.000	3.044	0.070	0.057	304.795	7.289	5.703
50.000	3.394	0.073	0.061	341.242	7.544	6.047
55.000	3.760	0.077	0.065	378.963	7.831	6.383
60.000	4.142	0.080	0.069	418.116	8.135	6.714

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS — PAGE 139

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.244	0.223	0.080	391.417	39.507	12.252
15.000	3.360	0.217	0.088	588.955	39.153	14.184
20.000	4.443	0.212	0.092	784.719	38.622	15.381
25.000	5.502	0.209	0.099	977.830	37.948	16.633
30.000	6.546	0.207	0.107	1167.568	37.309	17.875
35.000	7.581	0.204	0.115	1354.112	36.468	19.108
40.000	8.601	0.203	0.125	1536.454	35.903	20.538
45.000	9.614	0.204	0.133	1715.970	35.878	21.646
50.000	10.635	0.207	0.139	1895.360	36.069	22.361
55.000	11.671	0.211	0.144	2075.705	36.393	22.991
60.000	12.726	0.215	0.149	2257.669	36.783	23.558

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS — PAGE 140

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.643	0.439	0.106	1161.418	108.702	20.176
15.000	6.840	0.424	0.120	1704.929	105.574	24.111
20.000	8.960	0.411	0.127	2232.800	102.422	26.317
25.000	11.015	0.400	0.136	2744.910	99.086	28.729
30.000	13.014	0.390	0.150	3240.341	95.979	31.104
35.000	14.966	0.379	0.161	3720.235	92.501	33.432
40.000	16.862	0.371	0.175	4182.758	89.855	36.225
45.000	18.718	0.369	0.186	4632.012	88.645	38.171
50.000	20.564	0.370	0.192	5075.238	88.006	39.120
55.000	22.412	0.371	0.198	5515.270	87.698	39.841
60.000	24.269	0.374	0.203	5953.758	87.532	40.377

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS — PAGE 141

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

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L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.322	0.588	0.101	1851.215	169.836	18.177
15.000	9.262	0.566	0.119	2700.396	164.121	23.548
20.000	12.094	0.548	0.128	3521.002	158.519	26.457
25.000	14.832	0.530	0.141	4313.594	152.664	29.772
30.000	17.483	0.515	0.155	5076.914	147.204	33.069
35.000	20.058	0.498	0.169	5812.934	141.289	36.307
40.000	22.547	0.485	0.185	6519.379	136.739	40.249
45.000	24.974	0.481	0.198	7203.070	134.424	42.892
50.000	27.377	0.479	0.205	7875.195	133.001	44.017
55.000	29.772	0.479	0.210	8540.199	132.083	44.786
60.000	32.169	0.481	0.215	9200.617	131.379	45.275

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS — PAGE 142

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

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L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.697	0.807	0.062	3041.079	279.678	-2.053
15.000	12.731	0.777	0.083	4439.469	270.112	5.076
20.000	16.618	0.751	0.094	5790.031	260.596	8.802
25.000	20.372	0.725	0.109	7093.016	250.549	13.517
30.000	23.997	0.702	0.126	8345.758	241.061	18.389
35.000	27.505	0.676	0.143	9551.066	230.776	23.245
40.000	30.885	0.656	0.164	10704.945	222.748	29.286
45.000	34.167	0.648	0.179	11818.684	218.407	33.207
50.000	37.406	0.643	0.187	12910.723	215.546	34.663
55.000	40.622	0.641	0.193	13988.453	213.511	35.525
60.000	43.829	0.641	0.198	15056.008	211.819	35.914

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS — PAGE 143

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

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L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.686	0.931	0.022	3624.118	353.421	-25.436
15.000	14.342	0.904	0.042	5391.223	345.129	-19.443
20.000	18.862	0.876	0.051	7116.867	335.228	-16.456
25.000	23.244	0.848	0.067	8793.004	323.805	-11.586
30.000	27.486	0.822	0.085	10412.031	312.572	-6.137
35.000	31.596	0.792	0.104	11974.887	299.865	-0.461
40.000	35.557	0.769	0.127	13474.215	289.757	6.926
45.000	39.403	0.758	0.143	14923.000	284.210	11.666
50.000	43.196	0.752	0.151	16344.047	280.428	13.268
55.000	46.958	0.749	0.157	17746.191	277.629	14.160
60.000	50.704	0.747	0.162	19134.336	275.203	14.432

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS — PAGE 144

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.983	0.997	0.001	3819.541	396.814	-39.581
15.000	14.969	0.995	0.007	5803.609	405.792	-42.786
20.000	19.945	0.980	0.005	7832.566	404.490	-47.455
25.000	24.847	0.957	0.016	9855.016	396.052	-45.750
30.000	29.631	0.932	0.032	11835.281	385.707	-41.684
35.000	34.290	0.901	0.050	13763.816	372.228	-36.462
40.000	38.794	0.876	0.074	15624.957	361.120	-28.541
45.000	43.175	0.865	0.090	17430.559	355.181	-23.536
50.000	47.499	0.858	0.098	19206.461	351.114	-22.224
55.000	51.791	0.855	0.104	20962.031	348.029	-21.664
60.000	56.064	0.852	0.108	22702.176	345.251	-21.776

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 19

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 80

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 145

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = 0.0 TRIM = -1.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.003	1.000	-0.000	3833.440	398.476	-40.380
15.000	15.000	1.000	0.005	5825.816	409.192	-43.721
20.000	20.000	1.000	-0.000	7871.777	418.823	-51.185
25.000	25.003	1.000	-0.001	9965.895	427.091	-58.054
30.000	30.002	1.000	-0.001	12101.352	435.797	-65.412
35.000	35.003	1.000	-0.001	14280.336	446.432	-74.072
40.000	40.005	0.999	-0.001	16512.496	453.817	-84.963
45.000	45.002	1.000	-0.001	18781.582	457.683	-92.448
50.000	50.004	1.000	-0.001	21070.000	458.224	-97.184
55.000	55.003	1.000	-0.000	23361.117	458.154	-100.688
60.000	60.002	1.000	-0.000	25651.887	457.449	-104.064

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 146

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.773	0.071	0.036	68.018	6.788	3.028
15.000	1.129	0.065	0.036	101.956	6.772	3.390
20.000	1.456	0.064	0.037	135.817	6.821	3.756
25.000	1.774	0.064	0.039	169.922	6.895	4.068
30.000	2.096	0.066	0.043	204.399	6.994	4.446
35.000	2.424	0.067	0.047	239.369	7.064	4.851
40.000	2.758	0.068	0.052	274.691	7.161	5.314
45.000	3.100	0.071	0.057	310.499	7.358	5.762
50.000	3.455	0.074	0.061	347.289	7.611	6.085
55.000	3.824	0.077	0.065	385.346	7.897	6.426
60.000	4.211	0.081	0.069	424.830	8.202	6.761

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 147

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.323	0.225	0.080	403.670	39.894	12.249
15.000	3.448	0.217	0.086	603.139	39.392	13.949
20.000	4.535	0.213	0.093	800.100	38.873	15.566
25.000	5.601	0.210	0.099	994.463	38.196	16.598
30.000	6.653	0.209	0.107	1185.443	37.555	17.814
35.000	7.696	0.206	0.115	1373.220	36.754	19.045
40.000	8.726	0.204	0.125	1556.992	36.125	20.485
45.000	9.747	0.205	0.134	1737.616	36.021	21.765
50.000	10.774	0.208	0.139	1917.721	36.195	22.369
55.000	11.815	0.212	0.145	2098.696	36.506	23.015
60.000	12.875	0.216	0.150	2281.227	36.893	23.592

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 148

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.749	0.442	0.105	1181.594	109.489	20.047
15.000	6.960	0.425	0.117	1729.040	106.015	23.380
20.000	9.087	0.413	0.129	2259.117	102.904	26.721
25.000	11.153	0.402	0.138	2773.639	99.561	28.541
30.000	13.164	0.393	0.149	3271.445	96.444	30.845
35.000	15.127	0.382	0.161	3753.667	93.059	33.166
40.000	17.037	0.373	0.175	4218.961	90.244	35.979
45.000	18.904	0.371	0.187	4670.184	88.835	38.348
50.000	20.757	0.371	0.192	5114.359	88.150	39.017
55.000	22.610	0.372	0.198	5555.109	87.805	39.772
60.000	24.473	0.375	0.204	5994.133	87.627	40.330

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 152

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.984	0.998	0.001	3779.960	396.173	-39.115
15.000	14.976	0.995	0.001	5760.820	404.858	-44.516
20.000	19.950	0.983	0.009	7785.109	404.831	-45.385
25.000	24.864	0.960	0.015	9809.266	396.866	-46.285
30.000	29.663	0.935	0.030	11793.598	386.751	-42.665
35.000	34.340	0.905	0.048	13727.355	373.813	-37.566
40.000	38.867	0.880	0.072	15596.418	362.121	-29.659
45.000	43.265	0.866	0.092	17407.023	355.443	-22.992
50.000	47.597	0.860	0.097	19184.238	351.226	-22.832
55.000	51.894	0.856	0.103	20940.367	348.006	-22.192
60.000	56.172	0.853	0.107	22680.398	345.190	-22.208

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 151

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.708	0.935	0.021	3598.682	354.620	-25.706
15.000	14.384	0.906	0.035	5371.777	345.726	-21.806
20.000	18.913	0.880	0.055	7100.410	336.201	-15.186
25.000	23.311	0.852	0.066	8781.418	324.895	-12.280
30.000	27.571	0.826	0.083	10405.895	313.707	-7.088
35.000	31.700	0.797	0.102	11974.426	301.343	-1.456
40.000	35.684	0.772	0.125	13481.141	290.705	5.969
45.000	39.546	0.760	0.145	14934.664	284.530	12.054
50.000	43.347	0.754	0.150	16357.316	280.607	12.756
55.000	47.115	0.750	0.157	17760.352	277.683	13.728
60.000	50.866	0.748	0.161	19148.766	275.219	14.080

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 150

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.759	0.811	0.060	3039.026	281.104	-2.466
15.000	12.814	0.780	0.077	4444.547	270.857	3.121
20.000	16.712	0.754	0.096	5798.836	261.539	9.740
25.000	20.481	0.728	0.108	7106.531	251.523	12.949
30.000	24.123	0.705	0.124	8364.148	242.033	17.634
35.000	27.649	0.680	0.142	9574.309	231.984	22.477
40.000	31.049	0.659	0.163	10734.230	223.532	28.562
45.000	34.346	0.649	0.181	11851.891	218.699	33.521
50.000	37.593	0.644	0.186	12945.383	215.719	34.282
55.000	40.815	0.642	0.192	14023.977	213.589	35.226
60.000	44.027	0.641	0.198	15091.922	211.864	35.671

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

LOADING MANUAL CALCULATIONS

WATERMAN LASH

PAGE 149

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.425	0.592	0.100	1869.392	170.910	17.927
15.000	9.381	0.568	0.115	2723.944	164.703	22.371
20.000	12.222	0.550	0.130	3547.459	159.182	27.044
25.000	14.973	0.533	0.140	4343.367	153.324	29.447
30.000	17.638	0.518	0.154	5109.984	147.851	32.638
35.000	20.226	0.501	0.167	5849.238	142.077	35.860
40.000	22.732	0.488	0.184	6559.629	137.267	39.832
45.000	25.171	0.482	0.199	7245.965	134.649	43.118
50.000	27.582	0.480	0.204	7919.211	133.155	43.820
55.000	29.983	0.480	0.210	8584.988	132.181	44.639
60.000	32.385	0.482	0.216	9245.891	131.457	45.158

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 20

LOADING MANUAL CALCULATIONS — PAGE 153

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 79

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -1.00 TRIM = -2.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.002	1.001	-0.000	3793.060	397.807	-39.897
15.000	15.005	0.999	-0.000	5782.094	407.699	-45.446
20.000	20.000	1.000	0.005	7820.594	417.449	-48.384
25.000	25.002	1.000	-0.001	9907.840	425.620	-57.344
30.000	30.001	1.000	-0.001	12035.941	434.065	-64.856
35.000	35.002	1.000	-0.001	14206.266	444.253	-73.143
40.000	40.004	1.000	-0.001	16427.531	452.320	-84.158
45.000	45.002	1.000	0.003	18689.133	456.736	-90.288
50.000	50.003	1.000	-0.001	20972.813	457.523	-97.232
55.000	55.003	1.000	-0.000	23260.430	457.478	-100.832
60.000	60.002	1.000	-0.000	25547.820	456.842	-104.240

LOADING MANUAL CALCULATIONS — PAGE 154

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 81

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -2.00 TRIM = -3.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.809	0.071	0.036	71.046	6.860	3.036
15.000	1.164	0.066	0.035	105.346	6.845	3.396
20.000	1.493	0.064	0.036	139.573	6.883	3.723
25.000	1.813	0.065	0.039	173.990	6.971	4.080
30.000	2.139	0.067	0.044	208.846	7.075	4.503
35.000	2.471	0.068	0.048	244.220	7.157	4.908
40.000	2.811	0.069	0.053	280.005	7.251	5.338
45.000	3.158	0.072	0.057	316.261	7.423	5.758
50.000	3.516	0.075	0.062	353.374	7.679	6.129
55.000	3.889	0.078	0.066	391.772	7.964	6.470
60.000	4.286	0.082	0.070	431.592	8.270	6.828

LOADING MANUAL CALCULATIONS — PAGE 155

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 81

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -2.00 TRIM = -3.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.403	0.226	0.079	415.919	40.234	12.232
15.000	3.534	0.219	0.086	617.088	39.716	13.933
20.000	4.628	0.214	0.092	815.666	39.079	15.298
25.000	5.700	0.212	0.099	1011.061	38.439	16.554
30.000	6.760	0.210	0.108	1203.257	37.802	17.985
35.000	7.811	0.208	0.116	1392.265	37.042	19.199
40.000	8.851	0.206	0.125	1577.477	36.381	20.445
45.000	9.881	0.206	0.133	1759.381	36.142	21.574
50.000	10.913	0.209	0.140	1940.090	36.324	22.406
55.000	11.960	0.213	0.145	2121.711	36.622	23.040
60.000	13.025	0.217	0.151	2304.819	37.003	23.718

LOADING MANUAL CALCULATIONS — PAGE 156

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 81

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -2.00 TRIM = -3.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.854	0.445	0.104	1201.641	110.156	19.882
15.000	7.077	0.428	0.116	1752.420	106.684	23.242
20.000	9.216	0.415	0.126	2285.838	103.268	25.919
25.000	11.291	0.404	0.137	2802.180	100.022	28.333
30.000	13.313	0.395	0.151	3302.290	96.909	31.193
35.000	15.288	0.385	0.162	3786.833	93.622	33.454
40.000	17.212	0.376	0.174	4254.941	90.718	35.763
45.000	19.091	0.372	0.185	4708.531	88.969	37.757
50.000	20.949	0.372	0.193	5153.379	88.301	38.989
55.000	22.809	0.373	0.199	5594.883	87.916	39.708
60.000	24.676	0.376	0.205	6034.465	87.720	40.499

LOADING MANUAL CALCULATIONS — PAGE 157

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 81

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -2.00 TRIM = -3.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.523	0.595	0.099	1887.319	171.799	17.624
15.000	9.496	0.571	0.113	2746.315	165.638	22.120
20.000	12.352	0.552	0.126	3574.503	159.662	25.769
25.000	15.113	0.536	0.139	4372.813	153.962	29.090
30.000	17.791	0.521	0.156	5142.621	148.496	33.133
35.000	20.394	0.505	0.169	5885.102	142.872	36.263
40.000	22.917	0.491	0.183	6599.461	137.925	39.462
45.000	25.370	0.483	0.196	7289.082	134.790	42.175
50.000	27.786	0.481	0.205	7963.031	133.319	43.725
55.000	30.193	0.481	0.210	8629.625	132.285	44.500
60.000	32.600	0.482	0.217	9291.051	131.530	45.356

LOADING MANUAL CALCULATIONS — PAGE 158

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 81

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -2.00 TRIM = -3.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.819	0.814	0.059	3036.560	282.222	-2.960
15.000	12.892	0.783	0.076	4447.668	272.181	2.693
20.000	16.809	0.756	0.090	5808.574	262.181	7.620
25.000	20.589	0.732	0.106	7119.480	252.460	12.331
30.000	24.248	0.709	0.127	8381.781	243.001	18.410
35.000	27.790	0.684	0.144	9596.785	233.201	23.076
40.000	31.212	0.663	0.161	10762.793	224.524	27.904
45.000	34.527	0.650	0.176	11885.410	218.851	31.941
50.000	37.779	0.646	0.186	12979.668	215.907	34.070
55.000	41.008	0.643	0.192	14059.203	213.678	34.940
60.000	44.224	0.642	0.199	15127.594	211.901	35.928

LOADING MANUAL CALCULATIONS — PAGE 159

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 81

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -2.00 TRIM = -3.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.730	0.938	0.020	3572.976	355.400	-26.064
15.000	14.419	0.910	0.034	5349.973	347.050	-22.218
20.000	18.968	0.882	0.048	7085.227	336.783	-17.830
25.000	23.377	0.855	0.064	8769.141	325.933	-13.027
30.000	27.654	0.829	0.086	10398.805	314.833	-6.071
35.000	31.801	0.801	0.104	11972.973	302.827	-0.665
40.000	35.809	0.776	0.123	13487.109	291.922	5.113
45.000	39.691	0.761	0.140	14946.719	284.670	9.984
50.000	43.497	0.755	0.150	16370.070	280.801	12.456
55.000	47.272	0.751	0.156	17774.078	277.753	13.344
60.000	51.027	0.749	0.163	19162.848	275.226	14.400

LOADING MANUAL CALCULATIONS — PAGE 160

DATE 10/10/80
JOB NO. C7-1000
DRWG. NO. 29-01-16
TAPE NO. 750
REV. NO. 81

WATERMAN LASH

LBP = 797.33 FT. BEAM = 100.00 FT.

TRIM = -2.00 TRIM = -3.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.985	0.998	0.001	3740.845	395.093	-38.628
15.000	14.976	0.997	0.001	5716.305	404.684	-43.873
20.000	19.959	0.984	0.003	7739.727	404.651	-47.909
25.000	24.878	0.963	0.013	9762.980	397.590	-46.870
30.000	29.693	0.939	0.034	11750.930	387.771	-41.223
35.000	34.388	0.910	0.051	13689.789	375.394	-36.462
40.000	38.939	0.884	0.070	15566.758	363.454	-30.632
45.000	43.357	0.867	0.087	17384.031	355.475	-25.536
50.000	47.694	0.861	0.097	19161.406	351.354	-23.184
55.000	51.997	0.856	0.102	20918.176	348.003	-22.656
60.000	56.279	0.854	0.109	22658.191	345.117	-21.824

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 21

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 161
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 81

TRIM = -2.00 TRIM = -3.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.002	1.001	-0.000	3753.163	396.698	-39.394
15.000	15.005	1.000	-0.000	5736.648	407.112	-44.789
20.000	20.005	0.999	-0.001	7772.211	415.657	-50.359
25.000	25.001	1.000	-0.001	9850.496	424.117	-56.759
30.000	30.000	1.000	0.005	11971.086	432.407	-61.667
35.000	35.001	1.000	0.005	14133.121	442.051	-69.793
40.000	40.003	1.000	-0.001	16343.375	451.094	-83.280
45.000	45.005	0.999	-0.001	18598.848	455.347	-91.648
50.000	50.002	1.000	-0.000	20875.582	456.803	-96.864
55.000	55.002	1.000	-0.000	23159.598	456.797	-100.912
60.000	60.002	1.000	0.002	25443.582	456.205	-103.264

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 162
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 52 FR 52

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	0.844	0.071	0.035	74.082	6.932	3.044
15.000	1.200	0.066	0.035	108.742	6.911	3.400
20.000	1.529	0.065	0.036	143.296	6.955	3.733
25.000	1.853	0.066	0.040	178.071	7.055	4.093
30.000	2.182	0.067	0.044	213.348	7.156	4.470
35.000	2.519	0.069	0.048	249.128	7.243	4.877
40.000	2.864	0.070	0.054	285.343	7.335	5.400
45.000	3.215	0.072	0.058	322.019	7.497	5.780
50.000	3.578	0.076	0.062	359.504	7.748	6.167
55.000	3.955	0.079	0.067	398.241	8.036	6.532
60.000	4.350	0.083	0.070	438.420	8.338	6.853

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 163
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 61 FR 61

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	2.482	0.228	0.079	428.151	40.574	12.219
15.000	3.620	0.220	0.085	631.021	39.989	13.903
20.000	4.719	0.216	0.091	830.964	39.330	15.271
25.000	5.799	0.214	0.099	1027.615	38.725	16.514
30.000	6.868	0.212	0.107	1221.242	38.044	17.678
35.000	7.928	0.210	0.115	1411.464	37.292	18.889
40.000	8.976	0.208	0.126	1597.922	36.607	20.600
45.000	10.014	0.208	0.133	1780.955	36.308	21.510
50.000	11.053	0.210	0.140	1962.496	36.451	22.412
55.000	12.105	0.214	0.146	2144.751	36.757	23.153
60.000	13.176	0.218	0.151	2328.537	37.113	23.652

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 164
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 70 FR 70

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	4.959	0.447	0.104	1221.523	110.828	19.734
15.000	7.193	0.430	0.115	1775.662	107.219	23.074
20.000	9.342	0.417	0.125	2311.757	103.751	25.758
25.000	11.427	0.407	0.136	2830.513	100.594	28.136
30.000	13.463	0.397	0.147	3333.483	97.361	30.298
35.000	15.450	0.387	0.159	3820.287	94.084	32.559
40.000	17.386	0.378	0.176	4290.703	91.117	36.040
45.000	19.276	0.373	0.184	4746.289	89.215	37.479
50.000	21.142	0.373	0.193	5192.367	88.445	38.879
55.000	23.007	0.375	0.200	5634.590	88.075	39.851
60.000	24.881	0.377	0.204	6074.965	87.810	40.212

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 165
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 76 FR 76

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	6.622	0.597	0.098	1904.943	172.698	17.352
15.000	9.609	0.574	0.112	2768.435	166.367	21.824
20.000	12.478	0.555	0.125	3600.272	160.327	25.483
25.000	15.252	0.539	0.138	4401.902	154.770	28.752
30.000	17.947	0.523	0.151	5175.754	149.122	31.725
35.000	20.563	0.507	0.165	5921.363	143.512	34.854
40.000	23.100	0.493	0.185	6638.922	138.467	39.843
45.000	25.566	0.485	0.195	7331.258	135.100	41.712
50.000	27.990	0.483	0.204	8006.758	133.474	43.520
55.000	30.404	0.483	0.212	8674.125	132.456	44.661
60.000	32.817	0.483	0.216	9336.406	131.600	44.881

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 166
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 85 FR 85

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	8.878	0.818	0.057	3033.600	283.352	-3.398
15.000	12.967	0.786	0.074	4450.359	273.167	2.193
20.000	16.899	0.759	0.089	5816.195	263.123	7.123
25.000	20.696	0.736	0.105	7131.813	253.676	11.740
30.000	24.375	0.712	0.121	8400.191	243.934	16.063
35.000	27.934	0.688	0.137	9619.863	234.167	20.743
40.000	31.373	0.666	0.163	10790.695	225.331	28.475
45.000	34.703	0.652	0.175	11917.352	219.277	31.130
50.000	37.965	0.647	0.186	13013.734	216.081	33.682
55.000	41.200	0.645	0.194	14094.145	213.876	35.145
60.000	44.423	0.643	0.197	15163.520	211.933	35.101

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 167
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 95 FR 95

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.749	0.941	0.019	3546.912	356.169	-26.331
15.000	14.453	0.912	0.032	5327.754	347.928	-22.709
20.000	19.015	0.885	0.046	7067.395	337.743	-18.384
25.000	23.441	0.860	0.062	8756.113	327.324	-13.744
30.000	27.740	0.833	0.079	10392.734	315.914	-9.084
35.000	31.905	0.805	0.096	11972.305	303.983	-3.694
40.000	35.932	0.780	0.125	13492.223	292.896	5.851
45.000	39.831	0.763	0.137	14956.703	285.165	8.924
50.000	43.647	0.756	0.149	16382.527	280.979	11.937
55.000	47.428	0.753	0.157	17787.422	277.965	13.568
60.000	51.190	0.750	0.161	19177.246	275.226	13.296

DATE 10/10/80 LOADING MANUAL CALCULATIONS PAGE 168
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 101 FR 101

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	9.985	0.998	0.001	3702.217	394.043	-38.193
15.000	14.977	0.997	0.001	5672.434	403.877	-43.277
20.000	19.962	0.986	0.002	7691.816	404.859	-47.889
25.000	24.892	0.967	0.012	9716.113	398.719	-47.404
30.000	29.727	0.942	0.025	11709.707	388.723	-44.690
35.000	34.438	0.914	0.042	13653.324	376.560	-40.068
40.000	39.009	0.887	0.072	15536.125	364.473	-29.638
45.000	43.444	0.869	0.084	17358.492	355.946	-26.800
50.000	47.790	0.862	0.096	19138.223	351.459	-23.792
55.000	52.099	0.858	0.104	20895.520	348.169	-22.352
60.000	56.388	0.854	0.106	22636.367	345.037	-23.200

RED. 8X DATE 7-81
MA. NO. H-211 BLDR. NO. 29-01-16
FRAME NO. 22

DATE 10/10/80 LOADING MANUAL CALCULATIONS
JOB NO. C7-1000
DRWG. NO. 29-01-16 WATERMAN LASH
TAPE NO. 750 LBP = 797.33 FT. BEAM = 100.00 FT.
REV. NO. 82

TRIM = -3.00 TRIM = -4.00

FR 139 FR 139

L.B.DMS. = 797.33 FT.

DISPLACEMENT LONG.TONS	BUOYANCY LONG.TONS	CHANGE BUOY./TON L.TONS/TON	CHANGE BUOY./FT. TRIM L.TONS/FT.	BUOY.MOMT. FT.-TONS	CHANGE BUOY.MOMT./TON FT.TONS/TON	CHANGE BUOY.MOMT./FT.TRIM FT.TONS/FT.
10.000	10.002	1.001	-0.000	3713.769	395.618	-38.939
15.000	15.005	1.000	-0.000	5691.859	405.998	-44.177
20.000	20.004	0.999	-0.001	7721.852	414.377	-49.840
25.000	25.001	1.001	-0.000	9793.738	423.136	-56.261
30.000	30.006	1.000	-0.001	11909.418	430.782	-63.992
35.000	35.006	0.999	-0.001	14063.328	439.353	-71.833
40.000	40.002	1.000	0.006	16260.094	449.421	-79.360
45.000	45.004	1.000	-0.001	18507.199	454.304	-90.976
50.000	50.002	1.000	-0.000	20778.719	455.993	-96.768
55.000	55.002	1.000	0.002	23058.688	456.326	-99.872
60.000	60.004	1.000	-0.001	25340.316	455.533	-104.624

C7-1000 LONGITUDINAL STRENGTH FORM

COND. ______ DISPL.= ______ TRIM= ______ △TRIM= ______

NO.	ITEM / TANK	Ⓐ WT. FACTOR WT./1000	L.C.G. AFT. F.P.	Ⓑ WT. FACTOR X (L.C.G.)
1	LIGHTSHIP	2.369	82.92	196.437
2	CREW & STORES		95.00	
3	FOREPEAK		21.18	
4	FWD BALLAST		70.79	
5	F.O. STORAGE P/S		127.80	
6	F.O. STORAGE OVFW P/S		99.41	
	FRAME 52 W52		MW52	
7	LIGHTSHIP	2.216	213.87	473.936
8	NO. 1 BALLAST		173.54	
9	FWD FLUME		173.31	
10	AFT FLUME		209.97	
11	LIGHTERS HOLD 1A		172.67	
12	LIGHTERS HOLD 1B		209.33	
13	LIGHTERS HOLD 1C		246.00	
	FRAME 61 W61		MW 61	
14	LIGHTSHIP	2.341	318.31	745.164
15	NO.2 DB BALLAST P/S		321.63	
16	NO.2 WING BALLAST P/S		302.30	
17	NO.2A WING BALL. P/S (50%)		355.26	
18	LIGHTERS HOLD 2A		282.67	
19	LIGHTERS HOLD 2B		319.33	
20	LIGHTERS HOLD 2C		356.00	
	FRAME 70 W70		MW70	
21	LIGHTSHIP	1.327	409.99	544.057
22	NO.2A WING BALL. P/S (50%)		393.42	
23	NO.3 DB BALLAST P/S		411.00	
24	NO.3 WING F.O. P/S (50%)		429.33	
25	NO.3 WING F.O. OVFW P/S		414.67	
26	LIGHTERS HOLD 3A		392.67	
27	LIGHTERS HOLD 3B		429.34	
	FRAME 76 W76		MW76	
28	LIGHTSHIP	2.183	503.98	1100.188
29	NO.3 WING F.O. P/S (50%)		466.75	
30	NO.4 DB BALLAST P/S		499.74	
31	NO.4 WING BALL. P/S		520.73	
32	LIGHTERS HOLD 4A		466.01	
33	LIGHTERS HOLD 4B		502.67	
34	LIGHTERS HOLD 4C		539.34	
	FRAME 85 W85		MW85	

SHEAR FORCE & BENDING MOMENT IN STILLWATER

FRAME 52: BUOY. AT ___ PAGE ___; ADD BUOY ( )( ); CORR. FOR TRIM ( )(*); BUOY CORR. B52 — MOM. DUE TO BUOY AT ___; ADD MOM ( )( ); CORR. FOR TRIM ( )(*); BUOY. MOM. CORR. MB52
SF52 = W52 - B52 =
BM52 = MB52 + (W52-B52) 154.33 - MW52 =

FRAME 61: BUOY AT ___ PAGE ___; ADD BUOY. ( )( ); CORR. FOR TRIM ( )(*); BUOY CORR. B61 — MOM. DUE TO BUOY. AT ___; ADD. MOM. ( )( ); CORR. FOR TRIM ( )(*); BUOY. MOM. CORR. MB61
SF61 = W61 - B61 =
BM61 = MB61 + (W61-B61) 264.33 - MW61 =

FRAME 70: BUOY. AT ___ PAGE ___; ADD BUOY. ( )( ); CORR. FOR TRIM ( )(*); BUOY CORR. B70 — MOM. DUE TO BUOY. AT ___; ADD MOM. ( )( ); CORR. FOR TRIM ( )(*); BUOY. MOM. CORR. MB70
SF70 = W70 - B70 =
BM70 = MB70 + (W70-B70) 374.33 - MW70 =

FRAME 76: BUOY. AT ___ PAGE ___; ADD BUOY. ( )( ); CORR. FOR TRIM ( )(*); BUOY CORR. B76 — MOM. DUE TO BUOY. AT ___; ADD MOM. ( )( ); CORR. FOR TRIM ( )(*); BUOY. MOM. CORR. MB76
SF76 = W76 - B76 =
BM76 = MB76 + (W76-B76) 447.67 - MW76 =

FRAME 85: BUOY AT ___ PAGE ___; ADD BUOY. ( )( ); CORR. FOR TRIM ( )(*); BUOY CORR. B85 — MOM DUE TO BUOY. AT ___; ADD MOM. ( )( ); CORR. FOR TRIM ( )(*); BUOY. MOM. CORR. MB85
SF85 = W85 - B85 =
BM85 = MB85 + (W85-B85) 557.67 - MW85 =

* INTERPOLATED AT CORRECT DISPLACEMENT

C7-1000 LONGITUDINAL STRENGTH FORM

COND. ______ DISPL. ______ TRIM ______ △TRIM ______

NO.	ITEM / TANK	Ⓐ WT. FACTOR WT./1000	L.C.G. AFT F.P.	Ⓑ WT. FACTOR X (L.C.G.)
35	LIGHTSHIP	2.398	591.44	1418.273
36	D.O. STORAGE P/S		564.83	
37	400 GAL. D.G. DAY P		574.56	
38	L.O. STORAGE P		590.66	
39	L.O. STORAGE D.G. P		590.66	
40	L.O. GRAVITY S		590.66	
41	L.O. SETTLING P		590.47	
42	MAIN L.O. SUMP		618.57	
43	DISTILLED WATER P/S		613.13	
44	POTABLE WATER P/S		610.91	
45	500 GAL. SEWAGE S		591.16	
46	BILGE SLOP		572.29	
47	LIGHTERS HOLD 5A		612.67	
48	LIGHTERS MN. DK. ER		575.99	
	FRAME 95 W95		MW95	
49	LIGHTSHIP	1.525	667.02	1017.206
50	NO.6 WING F.O. P/S		663.83	
51	NO.6 WING F.O. OVFW P/S		634.67	
52	LIGHTERS HOLD 6A		649.34	
53	LIGHTERS HOLD 6B		686.01	
	FRAME 101 W101		MW101	
54	LIGHTSHIP	2.158	765.26	1651.431
55	NO.7 BALLAST P/S		736.96	
56	AFT BALLAST P/S		793.32	
57	LIGHTERS HOLD 7A		722.67	
58	LIGHTERS HOLD 7B		759.34	
59	LIGHTERS MN. DK. SG		795.99	
	TOTAL DISPLACEMENT WT		MWT	

SHEAR FORCE & BENDING MOMENT IN STILLWATER

FRAME 95: BUOY. AT ___ PAGE ___; ADD BUOY. ( )( ); CORR. FOR TRIM ( )(*); BUOY CORR B95 — MOM. DUE TO BUOY AT ___; ADD MOM. ( )( ); CORR. FOR TRIM ( )(*); BUOY. MOM. CORR. MB95
SF95 = W95 - B95 =
BM95 = MB95 + (W95-B95) 631.00 - MW95 =

FRAME 101: BUOY. AT ___ PAGE ___; ADD BUOY. ( )( ); CORR. FOR TRIM ( )(*); BUOY CORR B101 — MOM. DUE TO BUOY AT ___; ADD MOM. ( )( ); CORR. FOR TRIM ( )(*); BUOY. MOM. CORR. MB101
SF 101 = W101 - B101 =
BM101 = MB101 + (W101 - B101) 704.33 - MW101 =

TRIM CALCULATION PROCEDURE

DISPL./1000 L.TONS	TRIM BY THE BOW/STERN (FT) ④	⑧
①	⑤	⑨
②	⑥	⑩
③	⑦	⑪

1. LCG = $\frac{MWT}{WT}$ = ______ = ENTER TABLE PAGE W/WT. & LCG

2. ⑥ = $\left[\frac{② - ①}{5.000}(⑦ - ⑤)\right]$ + ⑤ = $\left[\frac{\quad}{5.000}(\quad)\right]$ + ___ =

3. ⑩ = $\left[\frac{② - ①}{5.000}(⑪ - ⑨)\right]$ + ⑨ = $\left[\frac{\quad}{5.000}(\quad)\right]$ + ___ =

4. △TRIM = $\frac{LCG - ⑥}{⑩ - ⑥}$ =

5. TRIM = △TRIM + ④ =

* INTERPOLATED AT CORRECT DISPLACEMENT

SAMPLE CALCULATIONS

C7-1000 LONGITUDINAL STRENGTH FORM

COND. 1A. 100% CARGO DEPART LGTR 398.57 W/ BALLAST
DISPL.= 56,988 TRIM= 8.112' A △TRIM= 0.112

NO.	ITEM / TANK	Ⓐ WT. FACTOR WT./1000	L.C.G. AFT. F.P.	Ⓑ WT. FACTOR X (L.C.G.)
1	LIGHTSHIP	2.369	82.92	196.437
2	CREW & STORES	0.125	95.00	11.875
3	FOREPEAK	0	21.18	
4	FWD BALLAST	0	70.79	
5	F.O. STORAGE P/S	1.988	127.80	254.066
6	F.O. STORAGE OVFW P/S	0	99.41	
	FRAME 52 W52	4.482	MW52	462.378
7	LIGHTSHIP	2.216	213.87	473.936
8	NO. 1 BALLAST	0	173.54	
9	FWD FLUME	0.268	173.31	46.447
10	AFT FLUME	0.327	209.97	68.660
11	LIGHTERS HOLD 1A	1.196	172.67	206.518
12	LIGHTERS HOLD 1B	1.594	209.33	333.672
13	LIGHTERS HOLD 1C	1.993	246.00	490.278
	FRAME 61 W61	12.076	MW 61	2081.884
14	LIGHTSHIP	2.341	318.31	745.164
15	NO.2 DB BALLAST P/S	1.384	321.63	445.136
16	NO.2 WING BALLAST P/S	0	302.30	
17	NO.2A WING BALL. P/S (50%)	0	355.26	
18	LIGHTERS HOLD 2A	1.993	282.67	563.361
19	LIGHTERS HOLD 2B	1.993	319.33	636.425
20	LIGHTERS HOLD 2C	1.993	356.00	709.508
	FRAME 70 W70	21.780	MW70	5181.478
21	LIGHTSHIP	1.327	409.99	544.057
22	NO.2A WING BALL. P/S (50%)	0	393.42	
23	NO.3 DB BALLAST P/S	0.991	411.00	407.301
24	NO.3 WING F.O. P/S (50%)	1.301	429.33	558.558
25	NO.3 WING F.O. OVFW P/S	0	414.67	
26	LIGHTERS HOLD 3A	1.993	392.67	782.591
27	LIGHTERS HOLD 3B	1.993	429.34	855.675
	FRAME 76 W76	29.385	MW76	8329.660
28	LIGHTSHIP	2.183	503.98	1100.188
29	NO.3 WING F.O. P/S (50%)	1.301	466.75	607.242
30	NO.4 DB BALLAST P/S	0.854	499.74	426.778
31	NO.4 WING BALL. P/S	0	520.73	
32	LIGHTERS HOLD 4A	1.993	466.01	928.758
33	LIGHTERS HOLD 4B	1.993	502.67	1001.821
34	LIGHTERS HOLD 4C	1.993	539.34	1074.905
	FRAME 85 W85	39.702	MW85	13469.352

SHEAR FORCE & BENDING MOMENT IN STILLWATER

FRAME 52: BUOY. AT 55.000 PAGE 74: 3.264; ADD BUOY (1.988)(0.070): 0.139; CORR. FOR TRIM (0.112)(*-.061): - 0.007; BUOY CORR. B52: 3.396 — MOM. DUE TO BUOY AT 55.000: 927.480; ADD MOM (1.988)(7.322): 14.556; CORR. FOR TRIM (0.112)(*-6.116): - 0.684; BUOY. MOM. CORR. MB52: 348.352
SF52 = W52 - B52 = 4.482 - 3.396 = 1.086
BM52 = MB52 + (W52-B52) 154.33 - MW52 = 348.352 + (1.086 × 154.33) - 462.378 = 46.576

FRAME 61: BUOY AT 55.000 PAGE 75: 10.537; ADD BUOY. (1.988)(0.203): 0.404; CORR. FOR TRIM (0.112)(*-.141): - 0.016; BUOY CORR. B61: 10.925 — MOM. DUE TO BUOY. AT 55.000: 1892.872; ADD. MOM. (1.988)(35.529): 70.632; CORR. FOR TRIM (0.112)(*[illegible]): - 2.564; BUOY. MOM. CORR. MB61: 1960.940
SF61 = W61 - B61 = 12.076 - 10.925 = 1.151
BM61 = MB61 + (W61-B61) 264.33 - MW61 = 1960.940 + (1.151 × 264.33) - 2081.884 = 183.300

FRAME 70: BUOY. AT 55.000 PAGE 76: 20.838; ADD BUOY. (1.988)(0.364): 0.724; CORR. FOR TRIM (0.112)(*-.197): - 0.022; BUOY CORR. B70: 21.540 — MOM. DUE TO BUOY. AT 55.000: 5194.672; ADD MOM. (1.988)(86.912): 172.781; CORR. FOR TRIM (0.112)(*[illegible]): - 4.526; BUOY. MOM. CORR. MB70: 5362.927
SF70 = W70 - B70 = 21.780 - 21.540 = 0.240
BM70 = MB70 + (W70-B70) 374.33 - MW70 = 5362.927 + (.240 × 374.33) - 5181.478 = 271.288

FRAME 76: BUOY. AT 55.000 PAGE 77: 28.093; ADD BUOY. (1.988)(0.472): 0.938; CORR. FOR TRIM (0.112)(*-.211): - 0.024; BUOY CORR. B76: 29.007 — MOM. DUE TO BUOY. AT 55.000: 8177.355; ADD MOM. (1.988)(131.407): 261.237; CORR. FOR TRIM (0.112)(*[illegible]): - 5.147; BUOY. MOM. CORR. MB76: 8433.445
SF76 = W76 - B76 = 29.385 - 29.007 = 0.378
BM76 = MB76 + (W76-B76) 447.67 - MW76 = 8433.445 + (.378 × 447.67) - 8329.660 = 273.009

FRAME 85: BUOY AT 55.000 PAGE 78: 39.074; ADD BUOY. (1.988)(0.634): 1.260; CORR. FOR TRIM (0.112)(*-.196): - 0.022; BUOY CORR. B85: 40.312 — MOM DUE TO BUOY. AT 55.000: 13694.855; ADD MOM. (1.988)(213.035): 423.514; CORR. FOR TRIM (0.112)(*[illegible]): - 4.231; BUOY. MOM. CORR. MB85: 14114.138
SF85 = W85 - B85 = 39.702 - 40.312 = -0.610
BM85 = MB85 + (W85-B85) 557.67 - MW85 = 14114.138 + (-.610 × 557.67) - 13469.352 = 304.607

* INTERPOLATED AT CORRECT DISPLACEMENT

C7-1000 LONGITUDINAL STRENGTH FORM

COND. 1A. 100% CARGO DEPART LGTR 398.57 W/ BALLAST
DISPL. 56.988 TRIM 8.112' A △TRIM 0.112

NO.	ITEM / TANK	Ⓐ WT. FACTOR WT./1000	L.C.G. AFT F.P.	Ⓑ WT. FACTOR X (L.C.G.)
35	LIGHTSHIP	2.398	591.44	1418.273
36	D.O. STORAGE P/S	0.112	564.83	63.261
37	400 GAL. D.G. DAY P	0.001	574.56	0.575
38	L.O. STORAGE P	0.028	590.66	16.538
39	L.O. STORAGE D.G. P	0.004	590.66	2.363
40	L.O. GRAVITY S	0.015	590.66	8.860
41	L.O. SETTLING P	0.020	590.47	11.809
42	MAIN L.O. SUMP	0.010	618.57	6.186
43	DISTILLED WATER P/S	0.486	613.13	297.981
44	POTABLE WATER P/S	0.303	610.91	185.106
45	500 GAL. SEWAGE S	0	591.16	
46	BILGE SLOP	0	572.29	
47	LIGHTERS HOLD 5A	1.196	612.67	732.753
48	LIGHTERS MN. DK. ER	0.399	575.99	229.820
	FRAME 95 W95	44.674	MW95	16442.877
49	LIGHTSHIP	1.525	667.02	1017.206
50	NO.6 WING F.O. P/S	2.652	663.83	1760.477
51	NO.6 WING F.O. OVFW P/S	0	634.67	
52	LIGHTERS HOLD 6A	1.594	649.34	1035.048
53	LIGHTERS HOLD 6B	1.594	686.01	1093.520
	FRAME 101 W101	52.039	MW101	21349.128
54	LIGHTSHIP	2.158	765.26	1651.431
55	NO.7 BALLAST P/S	0	736.96	
56	AFT BALLAST P/S	0	793.32	
57	LIGHTERS HOLD 7A	1.196	722.67	864.313
58	LIGHTERS HOLD 7B	1.196	759.34	908.171
59	LIGHTERS MN. DK. SG	0.399	795.99	317.600
	TOTAL DISPLACEMENT WT	56.988	MWT	25,090.623

SHEAR FORCE & BENDING MOMENT IN STILLWATER

FRAME 95: BUOY. AT 55.000 PAGE 79: 45.690; ADD BUOY (1.988)(0.743): 1.477; CORR. FOR TRIM (0.112)(*-.141): - 0.016; BUOY CORR B95: 47.149 — MOM. DUE TO BUOY. AT 55.000: 17619.902; ADD MOM. (1.988)(277.341): 551.354; CORR. FOR TRIM (0.112)(*[illegible]): - 1.429; BUOY. MOM. CORR. MB95: 18169.827
SF95 = W95 - B95 = 44.674 - 47.149 = -2.475
BM95 = MB95 + (W95-B95) 631.00 - MW95 = 18169.827 + (-2.475 × 631.0) - 16442.877 = 164.725

FRAME 101: BUOY. AT 55.000 PAGE 80: 50.946; ADD BUOY. (1.988)(0.849): 1.688; CORR. FOR TRIM (0.112)(*-.108): - 0.012; BUOY CORR B101: 52.622 — MOM. DUE TO BUOY AT 55.000: 21119.859; ADD MOM. (1.988)(346.852): 692.529; CORR. FOR TRIM (0.112)(*[illegible]): 2.021; BUOY. MOM. CORR. MB101: 21812.409
SF 101 = W101 - B101 = 52.039 - 52.622 = -0.583
BM101 = MB101 + (W101 - B101) 704.33 - MW101 = 21812.409 + (-.583 × 704.33) - [illegible]

TRIM CALCULATION PROCEDURE

DISPL./1000 L.TONS	TRIM BY THE STERN (FT) 8 ④	9 ⑧
55.000 ①	439.290 ⑤	441.102 ⑨
56.988 ②	440.080 ⑥	441.850 ⑩
60.000 ③	441.276 ⑦	442.984 ⑪

1. LCG = $\frac{MWT}{WT} = \frac{25{,}090.623}{56.988}$ = 440.279 ENTER TABLE PAGE 9 W/WT. & LCG

2. ⑥ = $\left[\frac{② - ①}{5.000}(⑦ - ⑤)\right]$ + ⑤ = $\left[\frac{1.988}{5.000}(1.986)\right]$ + 439.290 = 440.080

3. ⑩ = $\left[\frac{② - ①}{5.000}(⑪ - ⑨)\right]$ + ⑨ = $\left[\frac{1.988}{5.000}(1.882)\right]$ + 441.102 = 441.850

4. △TRIM = $\frac{LCG - ⑥}{⑩ - ⑥} = \frac{0.199}{1.770}$ = 0.112'

5. TRIM = △TRIM + ④ = 8 + 0.112 = 8.112' A

* INTERPOLATED AT CORRECT DISPLACEMENT

C7-1000 LONGITUDINAL STRENGTH FORM

COND. 2. 100% CARGO DEPART LGTR 249.19 TWO HIGH
DISPL.= 51,364 TRIM= 10.613' A △TRIM= 0.613'

NO.	ITEM / TANK	Ⓐ WT. FACTOR WT./1000	L.C.G. AFT. F.P.	Ⓑ WT. FACTOR X (L.C.G.)
1	LIGHTSHIP	2.369	82.92	196.437
2	CREW & STORES	0.125	95.00	11.875
3	FOREPEAK	0	21.18	
4	FWD BALLAST	0	70.79	
5	F.O. STORAGE P/S	1.988	127.80	254.066
6	F.O. STORAGE OVFW P/S	0	99.41	
	FRAME 52 W52	4.482	MW52	462.378
7	LIGHTSHIP	2.216	213.87	473.936
8	NO. 1 BALLAST	0	173.54	
9	FWD FLUME	0.268	173.31	46.447
10	AFT FLUME	0.327	209.97	68.660
11	LIGHTERS HOLD 1A	0.997	172.67	172.152
12	LIGHTERS HOLD 1B	1.246	209.33	260.825
13	LIGHTERS HOLD 1C	1.495	246.00	367.770
	FRAME 61 W61	11.031	MW 61	1852.168
14	LIGHTSHIP	2.341	318.31	745.164
15	NO.2 DB BALLAST P/S	1.384	321.63	445.136
16	NO.2 WING BALLAST P/S	0	302.30	
17	NO.2A WING BALL. P/S (50%)	0	355.26	
18	LIGHTERS HOLD 2A	1.495	282.67	422.592
19	LIGHTERS HOLD 2B	1.495	319.33	477.398
20	LIGHTERS HOLD 2C	1.495	356.00	532.220
	FRAME 70 W70	19.241	MW70	4474.678
21	LIGHTSHIP	1.327	409.99	544.057
22	NO.2A WING BALL. P/S (50%)	0	393.42	
23	NO.3 DB BALLAST P/S	0.991	411.00	407.301
24	NO.3 WING F.O. P/S (50%)	1.301	429.33	558.558
25	NO.3 WING F.O. OVFW P/S	0	414.67	
26	LIGHTERS HOLD 3A	1.495	392.67	587.042
27	LIGHTERS HOLD 3B	1.495	429.34	641.863
	FRAME 76 W76	25.850	MW76	7513.499
28	LIGHTSHIP	2.183	503.98	1100.188
29	NO.3 WING F.O. P/S (50%)	1.301	466.75	607.242
30	NO.4 DB BALLAST P/S	1.354	499.74	676.648
31	NO.4 WING BALL. P/S	0	520.73	
32	LIGHTERS HOLD 4A	1.495	466.01	696.685
33	LIGHTERS HOLD 4B	1.495	502.67	751.492
34	LIGHTERS HOLD 4C	1.495	539.34	806.313
	FRAME 85 W85	35.173	MW85	11852.067

SHEAR FORCE & BENDING MOMENT IN STILLWATER

FRAME 52: BUOY. AT 50.000 PAGE 90: 2.817; ADD BUOY (1.364)(0.066): 0.090; CORR. FOR TRIM (0.613)(*-.056): - 0.034; BUOY CORR. B52: 2.873 — MOM. DUE TO BUOY AT 50.000: 282.462; ADD MOM (1.364)(6.918): 9.436; CORR. FOR TRIM (0.613)(*-5.682): - 3.483; BUOY. MOM. CORR. MB52: 288.415
SF52 = W52 - B52 = 4.482 - 2.873 = 1.609
BM52 = MB52 + (W52-B52) 154.33 - MW52 = 288.415 + (1.609 × 154.33) - 462.378 = 74.354

FRAME 61: BUOY AT 50.000 PAGE 91: 9.273; ADD BUOY. (1.364)(0.197): 0.269; CORR. FOR TRIM (0.613)(*-.135): - 0.083; BUOY CORR. B61: 9.459 — MOM. DUE TO BUOY. AT 50.000: 1672.891; ADD. MOM. (1.364)(34.937): 47.654; CORR. FOR TRIM (0.613)(*[illegible]): - 13.628; BUOY. MOM. CORR. MB61: 1706.867
SF61 = W61 - B61 = 11.031 - 9.459 = 1.572
BM61 = MB61 + (W61-B61) 264.33 - MW61 = 1706.867 + (1.572 × 264.33) - 1852.168 = 270.226

FRAME 70: BUOY. AT 50.000 PAGE 92: 18.649; ADD BUOY. (1.364)(0.360): 0.491; CORR. FOR TRIM (0.613)(*-.191): - 0.117; BUOY CORR. B70: 19.023 — MOM. DUE TO BUOY. AT 50.000: 4679.906; ADD MOM. (1.364)(86.848): 118.461; CORR. FOR TRIM (0.613)(*[illegible]): - 24.488; BUOY. MOM. CORR. MB70: 4773.879
SF70 = W70 - B70 = 19.241 - 19.023 = 0.218
BM70 = MB70 + (W70-B70) 374.33 - MW70 = 4773.879 + (.218 × 374.33) - 4474.678 = 380.805

FRAME 76: BUOY. AT 50.000 PAGE 93: 25.329; ADD BUOY. (1.364)(0.467): 0.640; CORR. FOR TRIM (0.613)(*-.216): - 0.136; BUOY CORR. B76: 25.843 — MOM. DUE TO BUOY. AT 50.000: 7426.238; ADD MOM. (1.364)(131.873): 179.875; CORR. FOR TRIM (0.613)(*[illegible]): - 28.009; BUOY. MOM. CORR. MB76: 7578.104
SF76 = W76 - B76 = 25.850 - 25.843 = 0.007
BM76 = MB76 + (W76-B76) 447.67 - MW76 = 7578.104 + (.007 × 447.67) - 7513.499 = 367.739

FRAME 85: BUOY AT 50.000 PAGE 94: 35.319; ADD BUOY. (1.364)(0.633): 0.863; CORR. FOR TRIM (0.613)(*-.191): - 0.117; BUOY CORR. B85: 36.265 — MOM DUE TO BUOY. AT 50.000: 12596.836; ADD MOM. (1.364)(214.974): 292.593; CORR. FOR TRIM (0.613)(*[illegible]): - 23.228; BUOY. MOM. CORR. MB85: 12816.151
SF85 = W85 - B85 = 35.173 - 36.265 = -1.092
BM85 = MB85 + (W85-B85) 557.67 - MW85 = 12816.151 + (-1.092 × 557.67) - 11852.067 = 355.108

* INTERPOLATED AT CORRECT DISPLACEMENT

C7-1000 LONGITUDINAL STRENGTH FORM

COND. 2. 100% CARGO DEPART LGTR 249.19 TWO HIGH
DISPL. 51,364 TRIM 10.613' A △TRIM 0.613

NO.	ITEM / TANK	Ⓐ WT. FACTOR WT./1000	L.C.G. AFT F.P.	Ⓑ WT. FACTOR X (L.C.G.)
35	LIGHTSHIP	2.398	591.44	1418.273
36	D.O. STORAGE P/S	0.112	564.83	63.261
37	400 GAL. D.G. DAY P	0.001	574.56	0.575
38	L.O. STORAGE P	0.028	590.66	16.538
39	L.O. STORAGE D.G. P	0.004	590.66	2.363
40	L.O. GRAVITY S	0.015	590.66	8.860
41	L.O. SETTLING P	0.020	590.47	11.809
42	MAIN L.O. SUMP	0.010	618.57	6.186
43	DISTILLED WATER P/S	0.486	613.13	297.981
44	POTABLE WATER P/S	0.303	610.91	185.106
45	500 GAL. SEWAGE S	0	591.16	
46	BILGE SLOP	0	572.29	
47	LIGHTERS HOLD 5A	0.997	612.67	610.832
48	LIGHTERS MN. DK. ER	0.498	575.99	286.848
	FRAME 95 W95	40.045	MW95	14760.694
49	LIGHTSHIP	1.525	667.02	1017.206
50	NO.6 WING F.O. P/S	2.652	663.83	1760.477
51	NO.6 WING F.O. OVFW P/S	0	634.67	
52	LIGHTERS HOLD 6A	1.246	649.34	809.078
53	LIGHTERS HOLD 6B	1.246	686.01	854.768
	FRAME 101 W101	46.714	MW101	19202.223
54	LIGHTSHIP	2.158	765.26	1651.431
55	NO.7 BALLAST P/S	0	736.96	
56	AFT BALLAST P/S	0	793.32	
57	LIGHTERS HOLD 7A	0.997	722.67	720.502
58	LIGHTERS HOLD 7B	0.997	759.34	757.062
59	LIGHTERS MN. DK. SG	0.498	795.99	396.403
	TOTAL DISPLACEMENT WT	51.364	MWT	22727.621

SHEAR FORCE & BENDING MOMENT IN STILLWATER

FRAME 95: BUOY. AT 50.000 PAGE 95: 41.656; ADD BUOY. (1.364)(0.743): 1.013; CORR. FOR TRIM (0.613)(*-.157): - 0.096; BUOY CORR B95: 42.573 — MOM. DUE TO BUOY. AT 50.000: 16187.676; ADD MOM. (1.364)(279.492): 381.227; CORR. FOR TRIM (0.613)(*[illegible]): - 10.826; BUOY. MOM. CORR. MB95: 16558.077
SF95 = W95 - B95 = 40.045 - 42.573 = -2.528
BM95 = MB95 + (W95-B95) 631.00 - MW95 = 16558.077 + (-2.528 × 631.0) - 14760.694 = [illegible]

FRAME 101: BUOY. AT 50.000 PAGE 96: 46.482; ADD BUOY. (1.364)(0.850): 1.159; CORR. FOR TRIM (0.613)(*-.105): - 0.064; BUOY CORR B101: 47.577 — MOM. DUE TO BUOY AT 50.000: 19400.109; ADD MOM. (1.364)(350.928): 478.666; CORR. FOR TRIM (0.613)(*[illegible]): 10.442; BUOY. MOM. CORR. MB101: 19889.217
SF 101 = W101 - B101 = 46.714 - 47.577 = -0.863
BM101 = MB101 + (W101 - B101) 704.33 - MW101 = 19889.217 + (-.863 × 704.33) - 19202.223 = 79.167

TRIM CALCULATION PROCEDURE

DISPL./1000 L.TONS	TRIM BY THE STERN (FT) 10 ④	11 ⑧
50.000 ①	440.719 ⑤	442.654 ⑨
51.364 ②	441.316 ⑥	443.217 ⑩
55.000 ③	442.909 ⑦	444.717 ⑪

1. LCG = $\frac{MWT}{WT} = \frac{22{,}727.621}{51.364}$ = 442.482 ENTER TABLE PAGE 9 W/WT. & LCG

2. ⑥ = $\left[\frac{② - ①}{5.000}(⑦ - ⑤)\right]$ + ⑤ = $\left[\frac{1.364}{5.000}(2.190)\right]$ + 440.719 = 441.316

3. ⑩ = $\left[\frac{② - ①}{5.000}(⑪ - ⑨)\right]$ + ⑨ = $\left[\frac{1.364}{5.000}(2.063)\right]$ + 442.654 = 443.217

4. △TRIM = $\frac{LCG - ⑥}{⑩ - ⑥} = \frac{1.166}{1.901}$ = 0.613'

5. TRIM = △TRIM + ④ = 10 + 0.613 = 10.613' A

* INTERPOLATED AT CORRECT DISPLACEMENT